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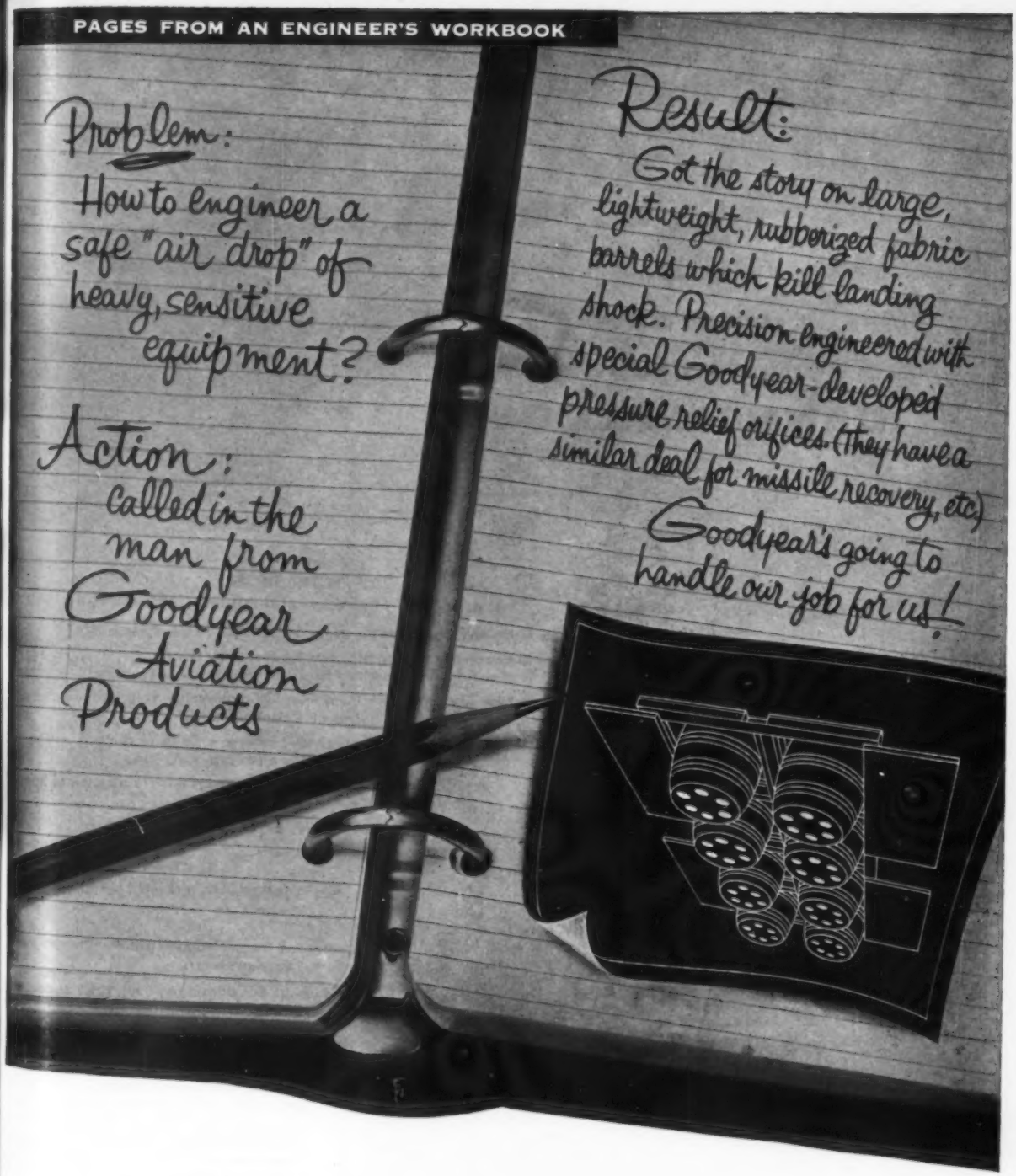
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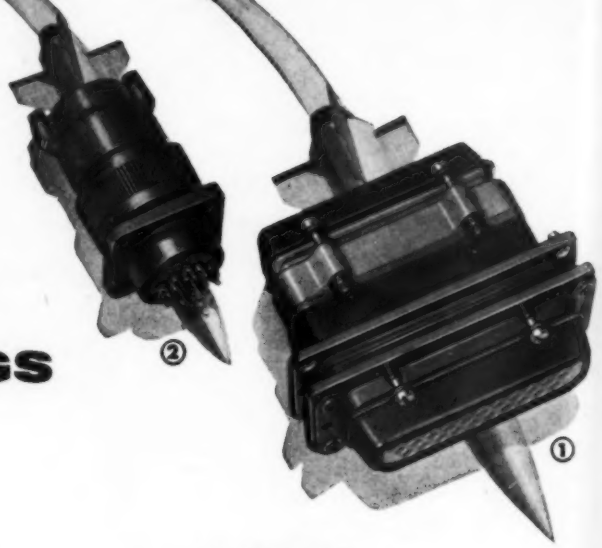

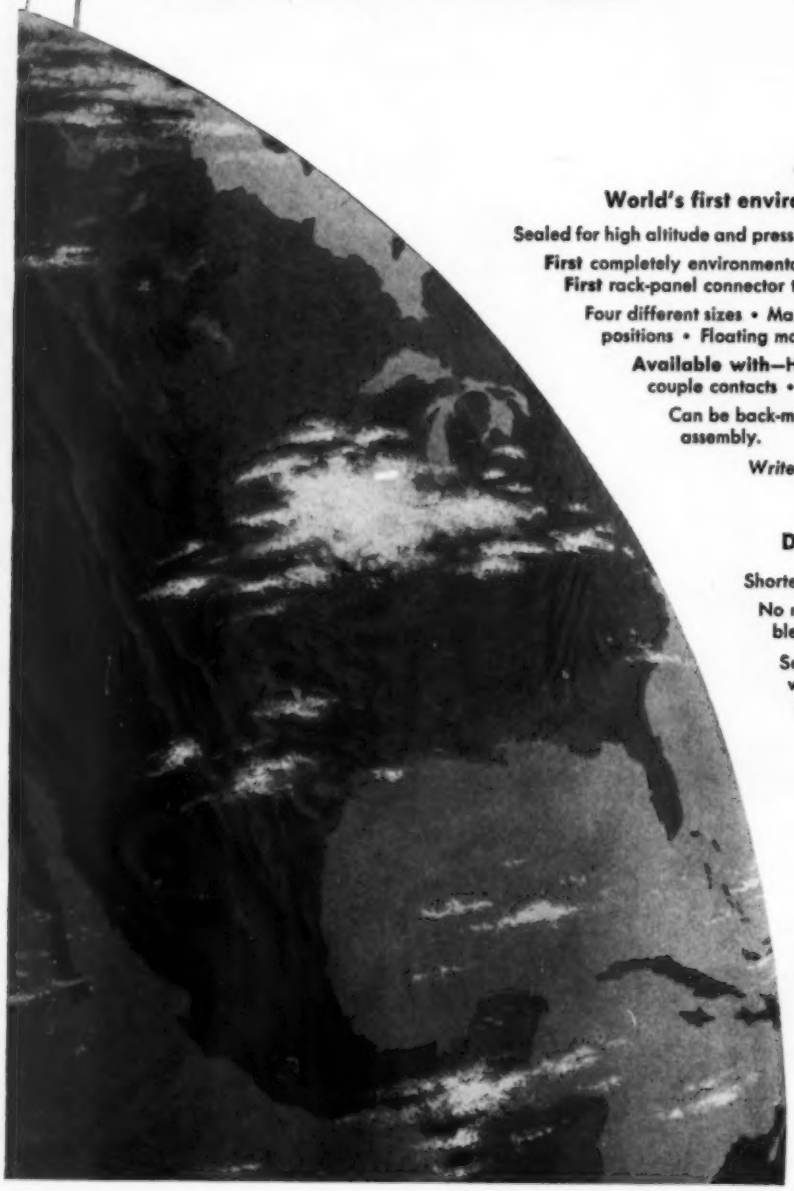

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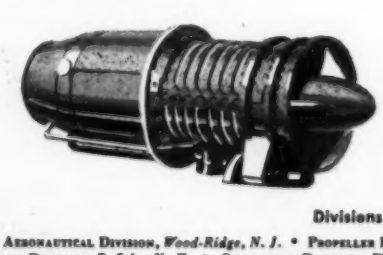
Beginning this issue, AMERICAN AVIATION adds a valuable new reader service feature: Aircraft Data Cards (see card insert) with photos, specifications and provision for your personal notes on new aircraft and helicopters. Inaugurated as the result of requests from industry, Aircraft Data Cards are perforated for easy removal. Follow this series in AMERICAN AVIATION starting with the Boeing 707 and Vertol 44.

Coming next issue: Lockheed Electra, Fairchild F-27 and McDonnell Model 119.

ACROSS THE U.S. AT 557 mph...

Answering the need for a much faster transport for military and business use, Lockheed's new Jetstar with Curtiss-Wright turbojet engines recently set a new unofficial record by spanning the continent from California to Georgia in 3 hours and 29 minutes. The Jetstar cut more than 1¾ hours from the former transport mark, averaging 557 miles per hour and reaching a top speed of 572 miles per hour. In test flights, the Jetstar has flown over 630 miles per hour.

Curtiss-Wright TJ-37 turbojet engines . . . . product of the cooperative engineering of Curtiss-Wright and Bristol Aero-Engines, Ltd., of Great Britain . . . have a thrust-weight ratio of 4.9 . . . the highest thrust-weight ratio for any current turbojet engine in service today. The TJ-37 is typical of the Curtiss-Wright program that seeks to bring to the United States *better* products *faster*, through reciprocal engineering agreements with leading companies in other countries of the Free World.



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Stop the Yakking—Get Positive Control!

APRIL 21, 1958, was another black day for U.S. aviation. That was the day a USAF F-100 collided with a United DC-7 over Las Vegas. It was the third such "unnecessary" accident in clear skies out west.

Okay. What's wrong? The answer in its simplest terms is an answer that has long been recognized but opposed by various interests who use the skies. *Positive air traffic control* must be imposed over the nation's skies at the earliest possible moment.

There has been talk, talk and more talk. All manner of compromises have been suggested to avoid positive traffic regulation. Individual accidents have been treated with individual attention. But nothing has been done, really, except putting out fires. Fires aren't put out until they happen. What is needed is a fire-*prevention* system—and the only prevention system for the air is positive control. Nothing short of this will work.

Positive control has been coming bit by bit. Each new accident involving the helpless public has brought it a little closer. The clamor of the pro-positive advocates has gradually drowned out the shouts of special interests who have fought any kind of control. But too much blood has been shed for any more arguments. The inevitable must be faced.

Our present traffic control system is geared to the "see and be seen" concept of separation under visual flight rules. It is a holdover from the Piper Cub and DC-3 days. It was outmoded years ago with faster piston-engined and jet planes. It will be even more outmoded when commercial airlines begin flying jets later this year.

Ironically, the ball was only beginning to roll in the direction of positive control when the Las Vegas accident took place. On that day CAB's Bureau of Air Safety was taking its first big step toward erasing the cause.

CAB has proposed a regulation that would give CAA authority to set up an experimental "positive control" corridor to pave the way for adoption of this much-needed concept of ATC. It would put all traffic in the experimental zone under positive CAA control day and night and in all weather conditions. Such a program can't be adopted overnight, but it should get No. 1 priority in CAA, CAB and Airways Modernization Board. It must not be sabotaged by special interests. It can't be rushed unduly, but it must be started. Now.

Showoffs and Death

On the same day that a USAF F-100 from Nellis AFB at Las Vegas came down on a United DC-7, a 33-year-old USAF pilot was ferrying a T-33 jet trainer from Langley AFB in Virginia to Brookley AFB in Alabama.

The *Louisville Courier-Journal,* an old and reliable newspaper, reported in a dispatch from Leitchfield, Ky., that the pilot buzzed his home town for five or ten minutes, executing all manner of maneuvers, and then dived out of control into a field.

Obviously he had been expected over his home town. His parents and friends were watching when he crashed. This same pilot made passes over the same town a week before on another delivery flight. Being 33 years of age, the pilot was not exactly a youngster. But his life was lost and another costly jet trainer was gone.

Jet training and delivery flights are a tough USAF problem but we aren't convinced that the service is exerting enough control, recognizing at the same time that the type of youngster who makes a hot military pilot is always going to get out of line sometime or other. Some of the trouble is at the base itself. Nellis AFB, for example, has been notorious in airline circles in the past for its lack of cooperation with civil and commercial authorities; a former commander took a spectacularly public-be-damned attitude.

But getting back to the Kentucky accident, what burned up the local people there and in Louisville was the attitude taken by Langley AFB, origin of the fatal flight. As reported in the Courier-Journal, Langley said it was *merely coincidence* that the pilot "ran into trouble" at 21,000 feet near his home town. Not only is Leitchfield not on the delivery route, but there were ample witnesses who saw the buzzing on both occasions.

We know the Air Force has problems in handling the hot-headed kids who fly jets, but we think it is building up a very bad reputation over the country by trying to cover up and to deny everything its pilots do wrong. Judging from our own mail, the public is painfully aware of the daily USAF accident record. USAF is getting a bad press. But it gets a worse one when it attempts to dodge the issue when a pilot goes off his route twice in a week to buzz his home town—and gets killed. Top commanders need to spend more time down on the operating level and tackle the problem realistically. They should tune in on conversations of the pilots sitting around an officers' club lounge after a day's flight and hear the proof positive of how regulations and flight plans are blithely ignored.

Wayne W. Parrish

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SPOTLIGHT

North American's X-15 will fly a ballistic course, once it has started, but, while its flight path can't be changed, its attitude within the trajectory can. This will be accomplished by hydrogen peroxide jets in wingtips for roll correction and in nose for pitch and yaw. If the pilot had no reaction controls, the X-15 could re-enter the atmosphere at an off angle and be destroyed.

Douglas had its No. 2 DC-8 approximately 85% complete to flight status when No. 1 was rolled out last month.

Some unusual troubles have been experienced with "hot" tipjets on helicopter rotors: exhaust fumes in cabin, pilot vertigo as result of whirling jets (particularly at night when rotors describe a "circle of fire"), directional control.

Lockheed uses two asymmetry switch actuators on the turboprop Electra to guard against a "split flap" condition that could possibly cause loss of control of the airplane. These switches, one located in each wing, freeze the wing-flap system before a situation of uncontrollability can develop. Asymmetry switches are produced by Western Gear, which also furnishes three speed-brake actuators and five trim-tab actuators for the Electra.

One tactical use Army plans for its upcoming generation of aerial jeeps calls for flying them to a theater of operations in large transports, discharging them in-flight over target.

Navy has a major modification program planned for the Martin P5M for fiscal 1959. Included in revamping the seaplanes: weight reduction, installation of improved antisubmarine warfare detection equipment; possible jet engines.

General Electric has awarded $80,000 development contract to I-T-E Circuit Breaker Co., Philadelphia, for prototype honeycomb shrouding for its J93 chemical-fueled jet engine slated to power USAF's North American B-70 bomber. Contract announcement was first disclosure of J93, formerly designated GE X-279.

Air Logistics Corp. estimates its Model 10,000 Pilot-Tug will save about $1 million in direct cost of fuel and engine repair expense when used in ground operations by an airline with a fleet of 10 jets. Unit recently was demonstrated at Castle AFB with B-52s and KC-135s, moved B-52s weighing up to 323,000 lbs.

Case in point for good logistics support: Recently more than 1,600 new structural parts were required to finish repair at Edwards AFB of a KC-135 damaged severely in the aft section by a midair collision with a T-33. Items having a fast-need tag on them were picked up by specially dispatched jet plants and flown direct to Edwards. Repairs were completed 10 days ahead of schedule, in 6,972 manhours against an estimate of 7,150 manhours.

Sikorsky's turbine-powered S-62 is scheduled to fly this month. Powerplant is a derated General Electric T58.

Hamilton Aircraft Co., Inc., Tucson, Ariz., recently completed an IRAN-type overhaul of eight Boeing B-17s destined for Bolivian government. Company also overhauled three Grumman SA-16 Albatrosses for Chilean Air Force and converted a Douglas B-26 to a high-altitude photo mapping aircraft for a Mexican concern.

First tipjet helicopter to win CAA certification is Sud Aviation's Djinn SO 1221. Copter, powered by a 528-shp Artouste jet, uses compressed air from turbine ducted to rotor tips. There is no tail rotor; steering is by a rudder in the jet stream of the turbine.

Western Gear Corp. has produced a super-speed box for a dynamometer test facility, whose gears reach relative speeds in excess of 420 mph. This is believed to be the first time that a unit operating at such speeds (67,000 rpm) has ever been built for a permanent installation.

WHEN—WHERE

Annual Miami-Havana Air Cruise, sponsored by Florida Air Pilots Assn. May 10-13. (For details contact: J. G. Pace, 310 S. E. 2nd Ave., Miami).

IRE national conference on aeronautical electronics, Biltmore Hotel, Dayton, May 12-14.

Airport Operators Council, annual meeting, San Juan, Puerto Rico, May 12-16.

Armed Forces Day Dinner, Sheraton-Park Hotel, Washington, D.C., May 16. Observances in various cities, May 10-18.

Annual National Conference, Society of Aeronautical Weight Engineers, Inc., Belmont Plaza Hotel, New York, May 19-22.

National Fire Protection Assn., annual aviation fire safety seminar, Palmer House, Chicago, May 19-23.

Flight Safety Foundation regional business aircraft safety seminar, Palmer House, Chicago, May 21-22.

Aircraft Industries Assn., board of governors meeting, Williamsburg, Va., May 21-23.

Aviation Writers Assn., annual convention, Shamrock Hilton Hotel, Houston, Tex., May 25-31.

JUNE

Armed Forces Communications & Electronics Assn., convention, Sheraton-Carlton Hotel, Washington, D.C., June 4-6.

Reading Aviation Service, annual maintenance and operations meeting, Municipal Airport, Reading, Pa., June 6-7.

Annual Skylady Derby, June 12. (For details contact: Ruth Nickell, 904 Nickell Rd., Topeka, Kan.)

Air Mail Pioneers 40th Anniversary Ball, Beverly Hilton Hotel, Beverly Hills, Calif., June 14.

Aviation Distributors & Manufacturers Assn. annual meeting, Mount Washington Hotel, Bretton Woods, N.H., June 25-27.

AIEE transportation conference, Statler Hotel, Buffalo, N.Y., June 25-27.

JULY

All American Aviation Exposition, Allegheny County Airport, Pittsburgh, Pa., July 4-6.

Annual All-Woman Transcontinental Air Race, San Diego to Charleston, S.C., July 4-8. (For details write: Air Race, Inc., 2611 E. Spring St., Long Beach 6, Calif.)

National Air Races, Royal Aero Club, Baginton Airport, Coventry, England, July 10-12.

Triennial inspection, NACA Ames Aeronautical Lab., Moffett Field, Calif. July 14-15.

Assn. of Local & Territorial Airlines, quarterly regional meeting, Denver, Colo., July 24-25.

Airline Electronics Engineering Committee meeting, Cosmopolitan Hotel, Denver, July 29-31.

Soaring Society of America annual national soaring contest, Bishop, Calif., July 29-Aug. 7. (For details contact: L. M. Licher, P.O. Box 66071, Los Angeles 66.)

AUGUST

National Flying Farmers Assn. annual convention, Hotel New Yorker, New York, Aug. 11-15.

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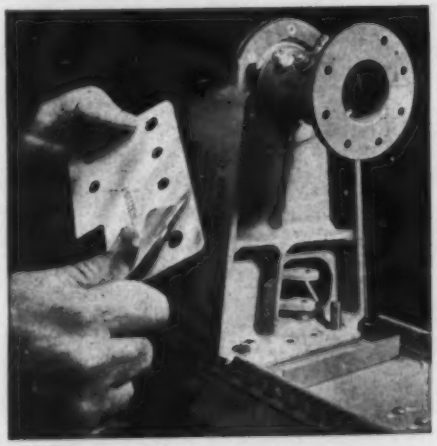

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AIRTRENDS

By mid-1960, USAF's combat forces will be equipped with about 65% manned aircraft units, 35% missile units. Present split is 99 to 1 in favor of manned aircraft. Biggest shift is due in defense forces—prediction is that 60% will be missile units, 40% manned interceptors. There are no plans to phase out manned aircraft completely in the foreseeable future.

Despite reports to the contrary, USAF says it expects to divide its maintenance work with private industry in fiscal 1959. About 71% of funds, or $947 million, will go to industry, including cost of modification kits. Industry's share for labor alone is estimated at $397 million. Of the labor expenditure, 47% or about $162 million would be competitively negotiated with aircraft service companies. Balance would go to manufacturers for inspection, repair and modification.

Chances of Congressional blessing for President's reorganization of Defense Dept. get more remote. Defense Secretary Neil McElroy finds difficulty in pointing to specific conditions at Pentagon that can be corrected only by a change in the statute.

Recession talk is causing new concern on Capitol Hill over how small business can get a share of the defense dollars. Senate Small Business Committee can be expected to look at contracting procedures.

Money is likely to be short by June to pay defense bills—if expenditure ceilings for fiscal 1958 aren't hiked again and obligation targets remain fixed at current levels for hardware (see page 12). This could mean a new program slowup or even a further cut in progress payments.

It looks as if Congress will try to fatten the Administration's fiscal 1959 defense budget request—if the Administration doesn't send another request to Capitol Hill for more money. Congressional rumblings are being detected over the disappointing $1.4 billion asked by the President to beef up this budget. USAF alone wanted $3.5 billion.

Strongest hint of Congressional attitude came from Rep. George Mahon (D-Tex.), chairman of House subcommittee on defense appropriations, and one of the best-informed and most even-tempered members of Congress. He's predicting "modifications" and "additions." Mahon has always been a strong advocate of long-range bomber development. He wasn't happy at failure to provide funds to speed development of the B-70 chemical bomber, among other things.

USAF's research budget for next year is described as "austere" by Assistant Air Secretary Richard Horner (Research and Development). Congressional concern is expressed over failure to support adequately the nuclear-powered aircraft program and the accelerated chemical bomber proposal.

USAF wants to keep the C-130 Hercules line open at Lockheed-Marietta. Even though no money is provided for the turboprop transport in the fiscal 1959 budget, USAF is looking at the possibility of a shift in the tentative program to permit a small purchase—probably 14 planes. Purchase would give USAF a chance to buy—if money is provided—some 60 aircraft in fiscal 1960.

Name change may be upcoming for Aircraft Industries Assn. Proposal for change has been sent to members. Best guess is that any new name for the association would recognize companies' missile work.

Odds now favor USAF award of the UCX (utility cargo jet) competition to McDonnell Aircraft, with North American Aviation the winner of the UTX (utility jet trainer) competition.

For late transport news and trends, see pages 47-50.

INDUSTRY
At Deadline

Budget trouble strikes Air Force, Navy; spending lid may have to be bumped

Both the Air Force and the Navy's Bureau of Aeronautics are still having trouble living within expenditure ceilings set by the Bureau of the Budget, despite the drastic cutbacks ordered last summer during the so-called economy wave.

Result is that unless expenditure ceilings both for fiscal 1958 and 1959 are raised, reprogramming actions almost as drastic as those which took place last summer can be expected.

Trouble stems from the fact that expenditures against major procurement accounts climbed from 5% for first year's funding in fiscal 1957 to 15% in fiscal 1958 and expenditures during the second year of a given contract have climbed from 30-35% to 40-47%. This means that overprogramming amounts to about 15% when related to expenditure ceilings, since the services still must finance the third and fourth years under contracts that were negotiated when expenditures were at a lower rate.

In recognition of this fact, the Bureau of the Budget and the Defense Secretary raised the expenditure limit from $17.6 billion to $18.441 billion for the Air Force in fiscal 1958. However, despite the experience of last year and the decision to up the fiscal 1958 and fiscal 1959 budget requests, no action has yet been taken to boost the AF expenditure ceiling for fiscal 1959, set at $18.1 billion in the pre-Sputnik era.

Explanations of the sharp rise in the expenditure curve are: (1) short-run missile contracts are paid out faster; (2) costs are up as a result of weapons complexity and the increase in the cost of materials and labor, and (3) the development cycle has been telescoped in an effort to keep ahead of Soviet development.

End result is that while the Congress is providing money in the shape of new appropriations, the Services are having increasing trouble in being allowed to spend it. And the reason given is simply that the services must live within expenditure controls, designed to keep the country within the debt limit.

One of the concrete results, at this time, is that AF, for example, hasn't yet won approval of the AF Secretary for its "buy" program for fiscal 1959, even though a program has been outlined to the Congress.

The offsetting factor is the rapidly building pressure to get contracts placed both for national security reasons and to ease the recession. This leaves the Administration with the unpleasant prospect of asking for another increase in the debt ceiling or indulging in deficit financing.

The other alternative is to stretch out and cut back existing programs again. Pentagon officials say that the choice hasn't been made yet.

Until made, the program outlined to the Congress for fiscal 1959 is merely a "pious hope" rather than anything which can be relied on by industry.

Federal airport aid bill heads for passage

The Senate Aviation Subcommittee has completed hearings on legislation to extend the Federal Airport Act. Despite Administration opposition, chances for a four-year extension beyond June 30, 1959 are regarded as good by observers.

The bill would also increase the annually appropriated funds from $63 million to $100 million each year plus an immediate $75 million emergency fund.

Hearings that were speedily completed last month left little doubt as to Congressional feeling on the subject of airport-aid, but Commerce Under-Secretary Louis Rothschild reminded supporters of the measure that a Presidential veto might loom in the background.

Presidential opposition to the proposal stems largely from the conviction that another major aviation area, the Federal Airways System, demands more immediate and increased attention. Administration view is that, if any additional funds are available for civil aviation purposes, the airways should get them.

However, with Congressional elections scheduled this fall, sentiment in favor of extension and expansion of the airport-aid program is strong and will be difficult for the Administration to override. The bill is now awaiting the approval of the full Senate Commerce Committee.

Navy orders anti-sub version of Electra

Future prospects for the financial success of the Electra turboprop program at Lockheed Aircraft Corp. received a big boost late last month as the Navy ordered an anti-submarine warfare (ASW) version of the commercial transport.

Although Navy's initial contract covers development of a mockup model, orders reportedly may run as high as 200 for the ASW version. With a resulting contract value approaching $500 million, this would erase any "break-even" problems for the Burbank manufacturer in the commercial Electra project.

Until the Navy decision, Lockheed had garnered some 144 commercial Electra orders, far short of the break-even point set by the company in its initial pricing of the turboprop.

Navy selected the Electra after studying a number of other transports. Model it wants would carry a crew of 10 and will be fitted with latest airborne equipment for detection of enemy submarines.

American Aviation names Jensen managing editor

Stanley C. Jensen has been appointed managing editor of AMERICAN AVIATION.

For the previous five years, Jensen was editorial coordinator and copy and production chief of Engineering News-Record—McGraw-Hill's second largest weekly. Prior to joining ENR early in 1953 he was an advertising copywriter for a New York agency.

Jensen's journalistic experience also includes reporting for a Philadelphia newspaper and the preparation of features for a number of Army and Air Force intelligence periodicals.

He succeeds Albert W. Bentz who has transferred to a Pentagon assignment to strengthen coverage in this area for both AMERICAN AVIATION and Aviation DAILY.

Roll-out of X-18 slated to take place this fall

Roll-out of the X-18, an Air Force-sponsored 35,000-lb. VTOL aircraft, is scheduled at Hiller Helicopters' Palo Alto, Calif. plant this fall. Initial testing will take place at the Hiller plant, with final evaluation planned for Edwards AFB, Calif.

The mammoth tilt-wing aircraft will be powered by two Allison T40 turboprop engines, spinning twin contra-rotating propellers. Development of the X-18 is under an Air Research and Development Command contract.

Congress may act soon on air collisions

Growing crisis of civil vs. military use of the airways is again getting serious attention on Capitol Hill. Recent fatal collision of a United Air Lines craft with a military fighter is prompting more than outcries.

One proposal, reportedly, by Senate Aviation Subcommittee chairman Mike Monroney (D-Okla.) would precipitate action on move to put military, commercial and private aircraft under one independent government agency. The Administration is working on long-range plans for a single federal aviation agency, but Monroney may take the opportunity to remind air safety officials the sooner action is taken the better.

A House Appropriations Subcommittee, meanwhile, summoned top air safety and navigation officials to explain whether a lack of funds is holding back effective airways separation. Also in the House another crash foe, Rep. George Meader (R-Mich.) introduced an amendment to the Federal Airport Act calling for better enforced separation.

Last F-102 rolls out; 1,000 were built

Last of the F-102s rolled out the doors last week at Convair-San Diego, where the production line has already been converted for production of the Convair Delta Dart, F-106.

About 1,000 of the airplanes were produced in two versions—the F-102A, single-seater all-weather interceptor and the two-place, side-by-side TF-102B trainer. The planes, in both versions, were powered with the J57, Pratt & Whitney engine. The F-102A was the first of the delta wing aircraft built to the area rule with the famous "coke bottle" waist.

The F-106, follow-on to the F-102, will also be made in two versions. The all-weather interceptor will be armed with the latest version of the Falcon air-to-air missile and the nuclear rocket MB-1, Genie. Both versions of the plane will be powered with the J75 Pratt & Whitney engine.

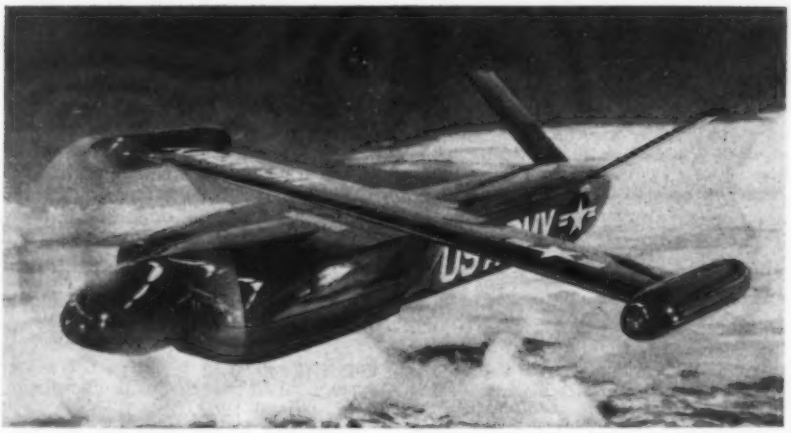
T55 passes 50-hr. test

Lycoming's T55 turboprop engine has passed Army/Air Force 50-hour qualification test at a rating of 1676 equivalent shaft horsepower.

The T55 currently is funded only through this stage of development. Army, however, has expressed interest in a helicopter version of the T55 having a military rating of 1,850 eshp.

Plan would be to "twin" this model for use in a fixed-wing installation by having two engines power props through a single shaft for takeoff. One engine could then be cut off in flight for cruise economy.

Late news in pictures . . .



NEWEST COMER to pilotless aircraft or drone field is Rheem Manufacturing Co., Downey, Calif. with this SD-2 all-weather, battlefield surveillance drone powered by a Lycoming 4-cylinder engine. SD-2 is designed to carry Army Signal Corps latest sensory equipment, is slated for delivery in July for evaluation and flight tests at Army's Electronic Proving Ground, Ft. Huachuca, Ariz.

NORTHROP N-156F counter-air fighter, shown in mockup form, is currently being developed for NATO and Southeast Asia allies as a lightweight, economical fighter. N-156 is reported capable of speeds in excess of Mach 2 and range of 2,000 miles. It may be zero-launched, is designed to carry the latest missile weapons.

DUE FOR FIRST FLIGHT at presstime, Sikorsky S-62 shown in artist's concept will use parts proven in company's S-55, but will carry 700-lb. greater payload than its Sikorsky-built predecessor. Powerplant for S-62 is single General Electric T58 turbine, rated at 1,050 shp at sea-level.

Weather Bureau plan stirs tempest

U.S. Weather Bureau may encounter tough sledding when it tries to steer its National Aviation Weather Service modernization plan through the Air Coordinating Committee.

First such document offered for public scrutiny by the Bureau in its history, the plan proposes to establish, over a five-year period, a program of development and modernization that is patterned after CAA's plans for a Federal Airways system.

The aims of the new plan sound lofty enough, and admittedly the Weather Bureau has fallen far behind the demands for aviation weather service. But indications are that the course of its proposal will be anything but smooth.

Already the Air Transport Assn. has succeeded in delaying action on the plan in ACC's Technical Division until May 9. This move was initiated by ATA to allow its members time to examine the document and prepare a report.

An ATA spokesman said that many recommendations made by the association to the bureau, concerning airline requirements, were conspicuously absent from the plan.

Most important among these requirements is winds-aloft reports on a frequent basis, with temperature readings at altitudes from 20,000 to 40,000 feet. This information is considered necessary in planning international flights, both for domestic and foreign airlines operating jets.

National Business Aircraft Assn. has attacked the plan, charging that it does not contain any provision for restoring reduced or suspended weather service, and that, in fact, it proposes to cut services still further. NBAA points out that the Weather Bureau has only about 3,500 personnel today, compared with 4,484 in 1948 and, NBAA claims, weather stations now total 314, whereas ten years ago there were 400.

In the foreword to the plan, the Bureau acknowledges that because of budgetary restrictions and growing demands for aviation weather service, its facilities have been stretched beyond the limits of efficient operation. During the last few years the Bureau has had scant success with the Commerce Dept., Bureau of the Budget and Congress when submitting its annual budget request.

Weather Bureau's plan calls for implementation of a five-part Weather System, with a scheduled completion date in fiscal 1963.

Biggest single feature is an aviation weather network consisting of approximately 35 airport weather stations, established on high-activity airports.

Germany may delay fighter decision

Decision by the West German government on the choice of a jet fighter-interceptor for the new German Air Force may be delayed until late summer.

The delay reportedly stems from lack of trained pilots (only about 23 are qualified today on Lockheed T-33 jet trainers).

At present, the German Air Force has available F-86Ks. Indications are that, by reason of country's geographical position and its lack of trained pilots, the Bonn government is looking with more interest at relatively short-range missiles.

Chances are that only a "token" number of manned fighters, probably Lockheed F-104s, will be purchased.

First photo of Convair's two-place F-106

TANDEM SECOND SEAT and longer cockpit canopy distinguishes Convair's F-106B all-weather jet interceptor from the F-106A Delta Dart, Supersonic maiden flight of the new aircraft took place recently at Edwards AFB.

BRIEFS

Manufacturing-military

Exploratory discussions that had been held about a possible combination of Bell Aircraft Corp. and Vertol Aircraft were ended by mutual consent.

Mass production of the Avro Arrow CF-105 supersonic jet fighter is expected to continue following a recommendation by the Defense Research Board to the Canadian Cabinet. DRB said the plane, armed with an air-to-air missile, would be a useful defense weapon for the next several years. CF-105 will cost about $4 million in mass production, won't be ready for operational service with RCAF for two or three years.

Lycoming Division of Avco Mfg. Corp. received a USAF-Army contract, expected to total about $10 million, for production of the T53-L-1 helicopter gas turbine engine. Deliveries will begin in January, 1959. Engine will be used in Army's Bell HU-1 Iroquois and USAF Kaman H-43B.

Sylvania Electric Products Inc. unveiled a military low-altitude altimeter, designated AN/APN-117, developed for use in helicopters. It is available for military and commercial use. Navy Bureau of Aeronautics participated in the development.

Douglas Aircraft's Long Beach, Calif. Division ordered an initial quantity of Air Torq pneumatic ground starters for its DC-8 jet transport. Unit is manufactured by Pre-Flite Industries, Long Beach.

Link Aviation Inc., Binghamton, N.Y., received an Air Materiel Command order for a B-58 flight simulator. Contract tops $1 million.

New planes to be bought in Army's aircraft build-up between now and 1960 include Grumman Mohawk AO-1 twin turboprop observation/utility plane and the Bell HU-1 helicopter.

Lycoming Div., Avco Manufacturing Corp. announced a new 6-cylinder (Model 0-540-A1A) piston engine for business aircraft. Rating is 250 hp, weight 396 lbs. First installation is slated for Piper Comanche.

USAF has designated Lockheed's C-130 as its universal drone launcher. Lockheed-Marietta is modifying two C-130As for drone duty; evaluation will be run at Holloman and Eglin AFB.

Republic Aviation has set up an F-105 cockpit mockup to simulate all operational lighting situations (from bright sunshine to total darkness) for pilot evaluation of cockpit control visibility under all conditions.

General Aviation

Clifford P. Burton, executive director of Air Traffic Control Assn. since its founding, has notified ATCA President Andrew Pitas of intent to resign before the year-end, preferably not later than group's annual meeting in October. Burton was noncommittal on plans, but indicated he does not plan to retire.

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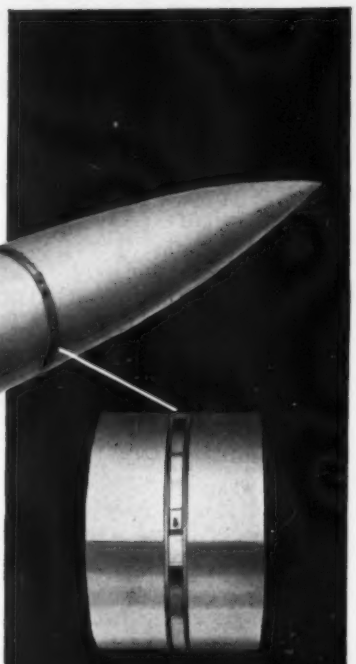

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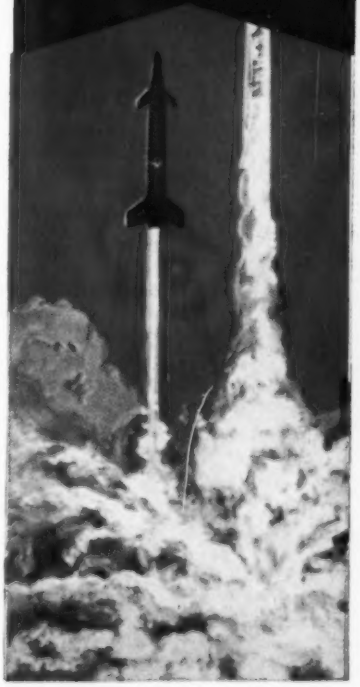

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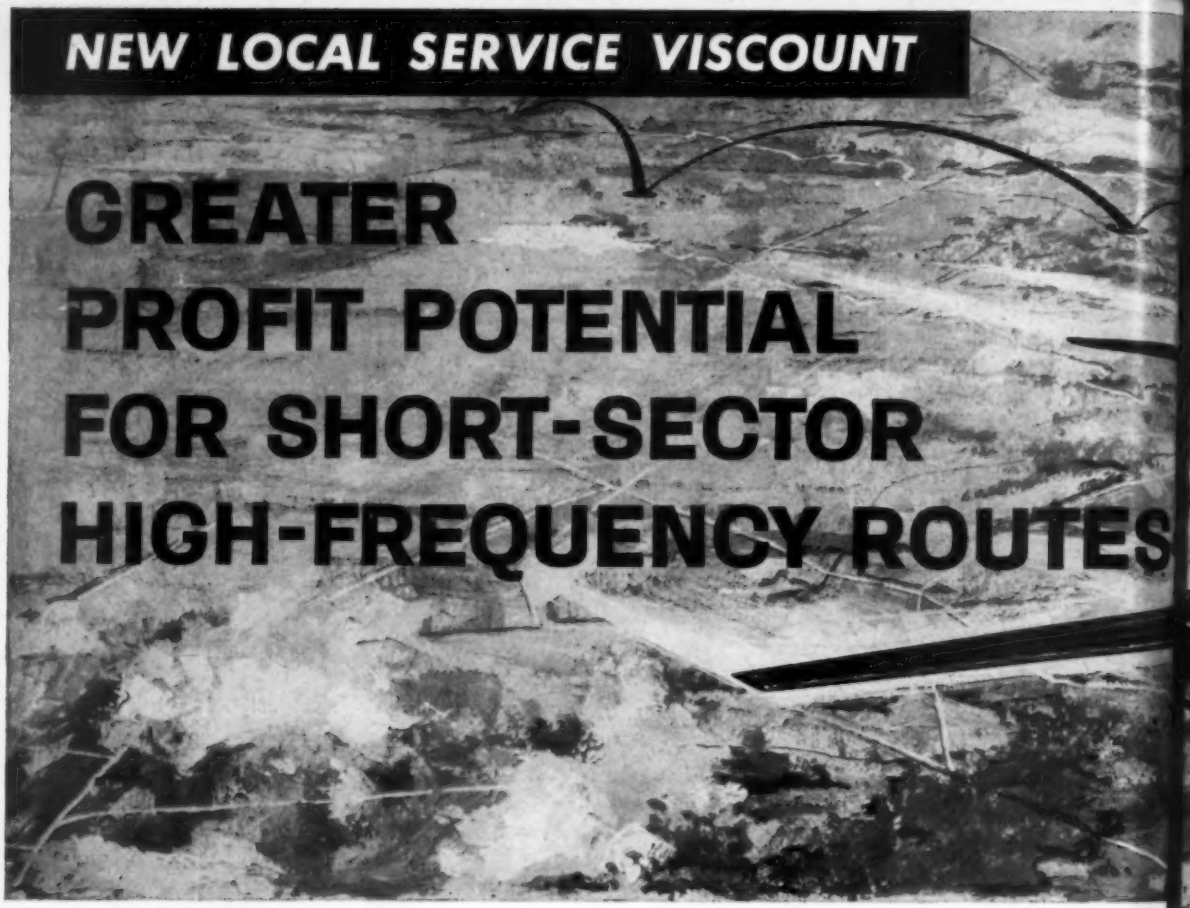

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LETTERS

Reaction from the cockpit

Feature presentation of the current pilot/flight engineer controversy as to who should man the third seat in jets and turboprops ("Conflict in the cockpit" AMERICAN AVIATION, April 7, p. 28) has generated considerable comment. Surprisingly, however, the comment stems from only one source—the flight engineer. (The pilots apparently have nothing to say).

Here's what flight engineer readers of AMERICAN AVIATION have to say on the timely topic:

Who's a 'button-pusher'?

It took the "Conflict in the cockpit" article by Karl Ruppenthal in the April 7 edition to get me to write my first "Letter to the Editor" of AMERICAN AVIATION.

For a man who has flown as long as has Mr. Ruppenthal, he displays an amazing ignorance of the nature of the flight engineer's job. Surely the jet transports are "different;" but the mass of complex machinery is greatly increased. The functions of the flight engineer on jets will shift in emphasis but will be far greater in scope. Any laxity or incompetence of the flight engineer on jets will have serious consequences. Many of the systems that were concerned with passenger comfort on contemporary aircraft become life or death in importance on the jets.

The lack of, or presence of, certain controls, levers or buttons, cited by Mr. Ruppenthal, indicates that his concept of the flight engineer is that of a "button-pusher." It is the detailed knowledge of the aircraft and its systems possessed by the flight engineer which permits him to follow a deteriorating condition via his instrumentation and *prevent* troubles from becoming critical.

It is the flight engineer's precise operation and management of the systems which will preserve a normally functioning aircraft for the two pilots to fly and possibly make the difference between the safe, economic operation of jets and disaster for the world's airlines. His check and double-check pre-flight and in-flight observations as liaison with maintenance will more than pay his way.

I was sorry to see Mr. Ruppenthal cite the Air Force practice of not using flight engineers on jet bombers in support of his "case." Certainly he realizes that the military mission of SAC is far different from that of safely transporting the air traveler. However, when SAC flew some B-52s on their nonstop round-the-world flight, they had two flight engineers on each plane!

I was particularly disturbed to see Mr. Ruppenthal quote a nameless airline president on such subjects as "feather-bedding." This writer has had the similar experience with airline executives in which the ALPA has been lambasted for *its* "feather-bedding," "dictatorial," "irresponsible" and "damnable" attitude toward the jet crew complement question raised by ALPA. But these words emanating from labor intercourse are hardly to be used as criteria for justifying an increase in the number of pilots on a crew! It was probably that same airline president who objected to the addition of a copilot to the crew many years ago!

Mr. Ruppenthal seems to be out of tune with Clancy Sayen, ALPA's president. In the *New York Times*, Sayen claimed the flight engineers signed a "sweetheart" contract with low wages, while Ruppenthal claims the FEIA wages are "so high—pilot pay will have to be increased 35% to maintain historic wage differentials."

Finally, Mr. Ruppenthal seems to relish the idea of an AFL-CIO imposed "solution" to the problem. Certainly, Mr. Ruppenthal will recognize that employes have the right to choose their representatives, AFL-CIO is a voluntary labor federation which is not going to force a craft to commit suicide by trying to force them to join ALPA!

All of this talk about "grounding" the jets comes from ALPA.

ALPA made the self-serving finding that jets need three pilots. ALPA set out to capture the flight engineers' work. ALPA has tried to put the airlines "in the middle" of a farcical dispute, which ALPA alone created.

It is too bad that ALPA: (1) has created a myth that the jets are "simple;" (2) has forced the airlines to take a firm position on the jet crew complement; (3) has forced the flight engineers to fight this attempt to grab the flight engineer work; (4) has forced the government into expensive proceedings to get at the facts in this trumped up dispute; and, (5) has cast a shadow over the public's confidence in the coming jet age. Fie on them! *WILLIAM D. KENT, president-emeritus Flight Engineers' International Assn.*

Is pay raise solution?

It was with a great deal of interest that I read the two articles regarding the pilot-flight engineer dispute. No doubt both sides have very convincing arguments for their cases.

However, I remember several years ago the airlines started coast-to-coast non-stop operation. At that time ALPA firmly stated that it was unsafe to be scheduled to fly over eight hours. ALPA then negotiated an increase in pay for flying over eight hours, so it then became safe. I can't help but feel that the safety in the present case is closely related to the safety in the past case.

Perhaps if ALPA could wangle another pay raise the pilots would again feel safe flying the jets with the mechanic-engineer. *NAME WITHHELD.*

ALPA arguments watery

The recent presentation of both sides in the current "Third Man Theme" for jet crew complement continues the fine work that we readers have come to except from AMERICAN AVIATION. My purpose is to enlighten your readers with a few comments regarding the statements of Captain Ruppenthal and the views of ALPA.

It is a very weak argument for ALPA to claim it is necessary to have two pilots in the cockpit at all times to watch for traffic, when one goes aft to "greet the passengers." This practice of "greeting the passengers" is being done now, today, in skies that are syrupy with airplanes. Why doesn't ALPA claim this "fail-safe" concept applies equally as well to the present?

Claiming that in the past year two pilots have died in the air of heart attacks is another self-serving assertion. In every case so far reported, the crew of copilot and flight engineer, plus an autopilot have done a creditable job of making an emergency landing. Should this unfortunate situation occur on a jet, it will be handled as well as the past incidents have been handled.

The ALPA concept of "fail-safe" appears to be another press agent stunt similar to the great furor over flying over eight hours nonstop in transcontinental service. Remember the serious "safety" problem that was inherent in this one? As I recall, a 21-day strike was engaged in by ALPA, and this famous $1.49 strike was settled by ALPA for that amount of money, to be paid to the captain. What price safety here? How much in wages is the "fail-safe" concept going to be worth?

I'd like to point out to the Captain that FEIA has not been content to follow ALPA in bargaining. On my airline, the F/E could BID a schedule before the copilot could. On my airline the F/E was earning $400 per month when the copilot was earning only $290. Today, flight engineers under FEIA agreements are considerably ahead, to the tune of $100 to $200 more per month, than F/E's who are represented by ALPA on Braniff and Delta.

In mentioning the recent PAA contract covering F/Es on PAA jets, Captain Ruppenthal admits that FEIA has not followed ALPA bargaining. In this paragraph he is complaining that the FEIA wage is so high for Flight Engineers that it upsets the historic wage differentials. Now this is serious. I can only speculate on what the rank and file pilots will say if ALPA can't quite do as well. Incidentally, on recent FEIA agreements, there is provided at least a 10% raise on piston-engined equipment, and a 20% raise for the new gas turbine equipment. Let ALPA match that.

We certainly hope that the concern of ALPA is really for the flight engineer, and future technological unemployment of pilots is of no concern.

On my airline, for instance, FEIA was recently approached by ALPA officials with a proposal that we merge the bargaining units into one, and ALPA would take care of us. All this simply on the grounds that there was a "problem" of surplus pilots and the flight engineers had to do something.

The very same set of proposals that Captain Ruppenthal mentions as having emanated from a president of one of the Big Four airlines, by coincidence I guess, is the same theme and points that ALPA on my airline had hoped to sell our F/Es on. This approach and suggestion was, of course, rejected by our F/Es. I might add here that this approach of the ALPA comes after FEIA had recently won a challenge to our bargaining rights. We also fought off "raids" by the ALPA on our membership, and their creation of this so-called independent union.

ALPA has been too quick to shout "safety" and claim it all for themselves. They might take a closer look and notice that the carriers and FEIA are just as zealous over safety, and have further considered ALPA's fail-safe concept and

have found it seriously wanting.

It is also worth noting that BOAC is returning all Britannias to the factory for installation of a fully equipped flight engineer station. This, after the original design of this "simple" gas-turbine airplane envisioned only a two-pilot crew.

FEIA has recently signed agreements with PAA, AAL, NAL, and lately Western Air Lines, covering gas-turbine airplanes and the carriage of a flight engineer. TWA has recently announced its intention to use an FEIA flight engineer on its jets.

It would appear that the ALPA case will soon be dismissed for lack of evidence. *DAVID J. LANDRY, flight engineer, Park Forest, Ill.*

Some noteworthy points

Our congratulations for the very fair presentation of the pilot-flight engineer controversy in the April 7 issue.

I have long felt that this problem should be explained to the public and your presentation did just that.

It is noteworthy that under no immediate pressure TWA's acting president, Warren Lee Pierson, issued the proclamation that TWA is going to use the "professional" flight engineer on its jets. This was a voluntary statement not derived from contract negotiations. Also on page 51 of your April 7 issue we find that BOAC has initiated the retrofit of its Britannia 312s with complete and separate stations for the flight engineer, because of his work load and the inadequacy of the "jump-seat" arrangement. These two points tell us quite a story. *ROBERT W. ALLARDYCE, Chairman of Safety and Engineering Committee, San Francisco Council, Flight Engineer's International Assn.*

Three tired fictions

In reference to "Conflict . . . in the cockpit . . . From the pilot's seat," in your magazine of April 7, 1958, I would like to analyze and comment on a few of the tired fictions sponsored by ALPA and once more aired by former ALPA insurgent Ruppenthal.

1. The fiction of the flight engineer as a mere "pusher of handles and toggler of switches."

Mere mechanical engine and system control manipulation is actually a rather minor part of the flight engineer's job responsibility. Any reasonably intelligent junior high student or 200-hour cub-trained "commercial pilot" could follow a checklist and set prop pitch, mixture, oil cooler doors, etc.

The need for the specialist flight engineer arises when the movement of these controls as per checklist does not attain the desired result. No. 2 engine leans out 60 pounds high. Bad gauge or a leak in the fuel feed line? (The answer to this question will determine whether to shut down the engine or keep it running.) No. 1 oil temperature is 10° high with the cooler doors fully closed. Radiator core carboned up, relief valve set wrong, or a master rod bearing about to cut loose? Page after page of examples could be set forth, and note that their number will multiply with the more complex jet aircraft.

Thus the function of the flight engineer is to analyze these discrepancies and inform the pilots of their scope and nature so that navigational decisions can be made, to do whatever can be done in flight to isolate and rectify the trouble, and to write up concise reports to enable ground maintenance to make the required repairs quickly and thus avoid expensive trouble-shooting delays on the ground.

The fact that there will be more automation on turbine aircraft in the positioning of engine and system controls does not detract from this primary responsibility of the flight engineer—to have the background, training and outlook to determine what is happening when the automatic positioning of controls does not attain the desired result, how and if the trouble may be rectified in flight, and how and when it should be fixed on the ground.

I'm sure that more than once in pilot Ruppenthal's career in aviation he has turned to his flight engineer and asked, "What the hell's wrong with No. 1 BMEP?", and been guided by his specialist engineer's analysis.

2. The fiction that crew complement of jet airliners should be governed by that of jet bombers.

Large Air Force jet bombers carry two pilots and a navigator, but no flight engineer. They also carry parachutes. They also have a daily utilization that would ground any commercial airline in existence. Industrial relations expert Ruppenthal should be aware that the objectives of military flying are not those of commercial aviation. It is submitted that commercial aviation should be conducted with a somewhat wider safety margin and with a few more hours per day of aircraft utilization; ends greatly aided in achievement by professional flight engineers.

3. The fiction that putting a commercial pilot certificate and an ALPA card in a flight engineer's pocket makes him a proximity warning device.

All large commercial jets now being built are provided with integral flight engineer panels; the 707, DC-8, 880, Comet IV and even the Britannia 312 turboprops, originally built with a DC-7-type flight engineer jump seat, are now being returned to Bristol for conversion to the separate panel configuration, out of operational necessity. (See AMERICAN AVIATION 4/7/58.)

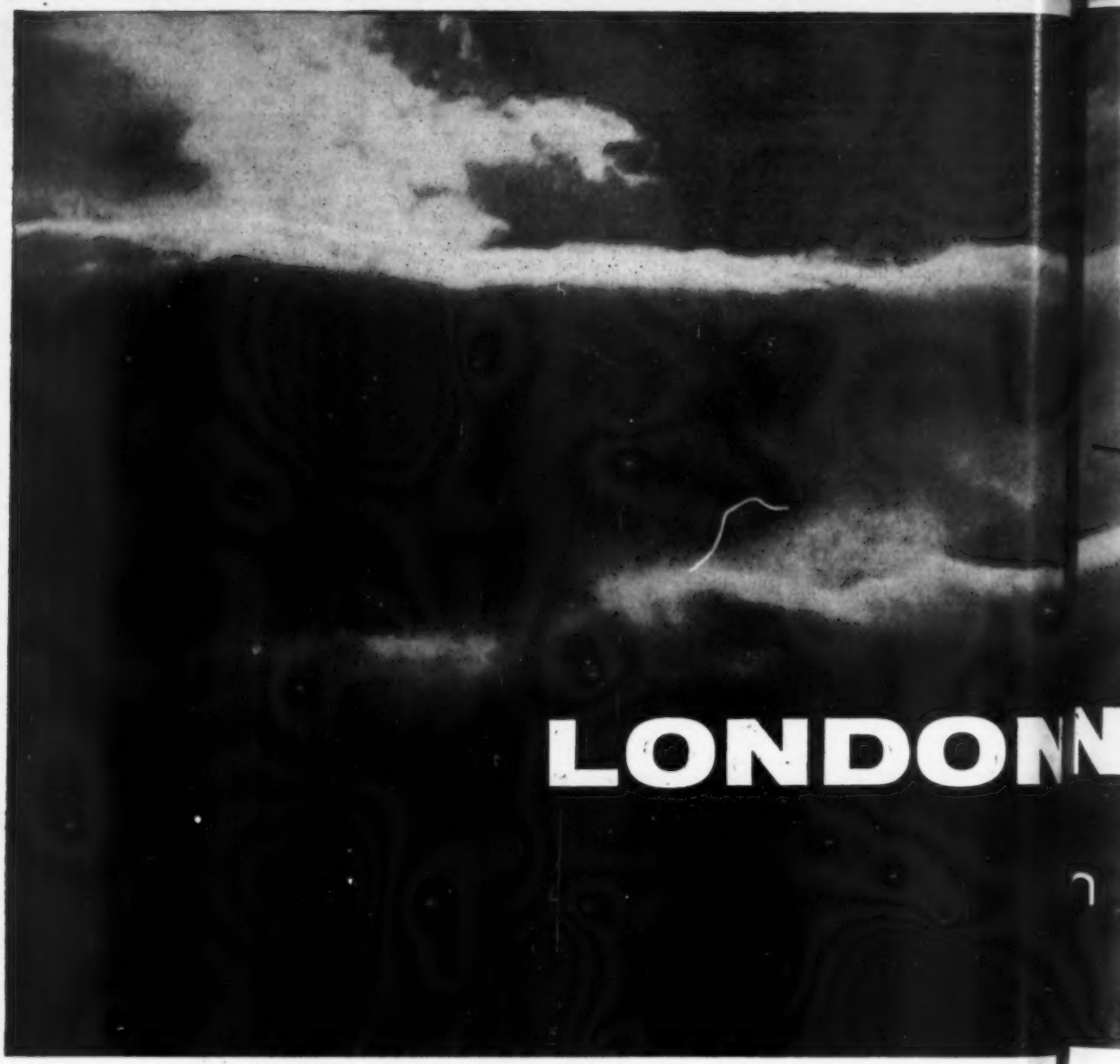
Thus, there is no question that there will be a flight engineer station at the rear of and to the side of the pilots seat in jet aircraft.

Knowing this, Mr. Ruppenthal yet suggests that providing the man sitting at this station with a commercial pilot certificate and a new union card will make him better able to help avoid collisions. I cannot follow Arbitrator Ruppenthal's logic on this point.

(Along these same lines, the pilot workload being so great on these complex high-speed jet aircraft, is it really necessary that the captain go back through the cabin and chat with the hundred-odd passengers on these flights of relatively short duration?)

In closing, I would suggest to Lawyer Ruppenthal that in quoting slurs (" 'Feather-bedding, pure and simple,' said the president of one of the major airlines . . .") he identify the source so that his readers may better know what weight to give the reported hearsay, otherwise stick to a factual presentation. *W. K. WOODMANSEE, flight engineer, Pleasant Hill, Calif.*

Circle No. 102 on Reader Service Card.



Another record for the Britannia

On Tuesday, 11th March, an EL AL Britannia flew from London to New York in 9 hours 22 minutes—fastest ever for a commercial aircraft.

EL AL and BOAC Britannias have broken the trans-atlantic commercial speed record eight times in three months of operation.

Aeronaves de Mexico have also made many record flights on their Mexico City/New York route.

WORLD-WIDE SERVICE, WORLD-WIDE ORDERS

Britannia 102's are now in their second year of service with BOAC, and flying well over a million miles a month on the world's longest and most exacting scheduled air routes.

Britannia 300's and 310's are in service with EL AL Israel Airlines, BOAC and Aeronaves de Mexico. They h also been ordered by Canadian Pacific, Cubana de Avia Hunting-Clan Air Transport and Northeast Airli Britannia 250's are on order for the British Royal Air F and the Ministry of Supply.

BRISTOL

Britannia

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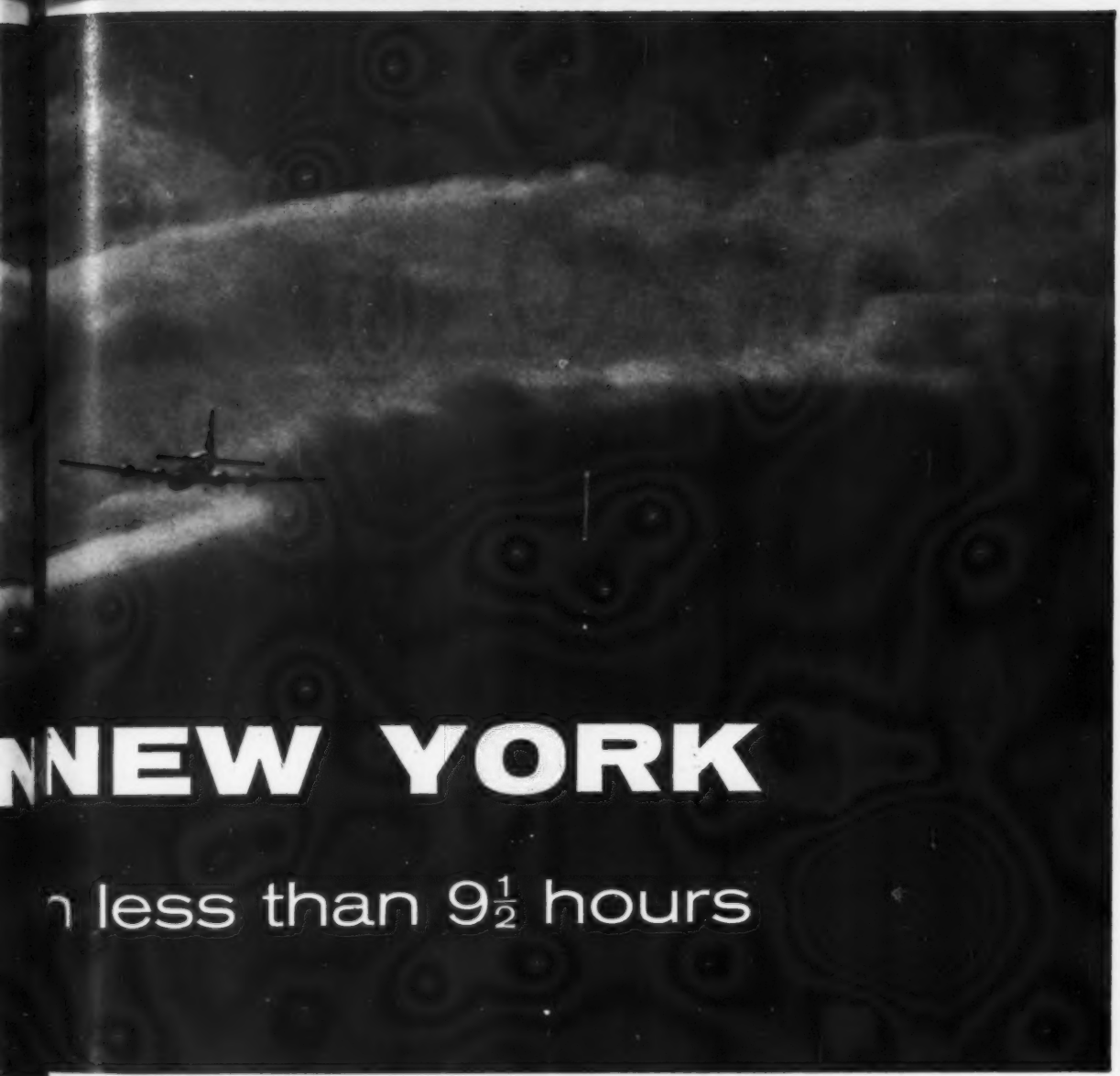
THE BRISTOL AEROPLANE CO (USA) INC
400 PARK AVENUE, NY 22 NY



Bristol Proteus jet-prop engines of the Britannia are the most rful, most advanced of their kind in airline operation. The us 705 is approved to such an extent that its life between overhauls has been extended to *1,300 hours*, and this was achieved in only 13 months of airline service—a more rapid advance than that achieved by any other aero-engine in aviation history.

First business plane flies polar route with B. F. Goodrich De-Icers

A production model PacAero Learstar recently became the first twin-engine business plane to make a trans-polar hop. Flying through one of the worst ice belts in the world, the Learstar made only one stop for refueling between Los Angeles and Düsseldorf, Germany. Total elapsed time —22 hours, 58 minutes.

This record flight was made possible in part by dependable B.F.Goodrich Type 21 Pneumatic De-Icers installed on leading edges of the Learstar's wings, stabilizers and fins. In addition, B.F.Goodrich De-Icers kept weight to a minimum, allowing an extra margin for fuel during the long flight.

Tailored to the exact shape of the airfoil surface and cemented on without stretching, B.F.Goodrich De-Icers fit smoothly, are easy to maintain and easy to operate. When ice begins to form, the pilot simply flips a switch and small, flexible tubes inflate and deflate in automatic sequence, snapping off ice into the airstream.

At present 36 Learstars are serving major companies in both this country and abroad. Each of these long-range planes is equipped with B.F.Goodrich Pneumatic De-Icers—the positive ice protection system with lightest weight. As a matter of fact, more and more multi-engine business aircraft are relying on this dependable means of ice removal for low-cost insurance against expensive delays.

Find out more about B.F.Goodrich Pneumatic De-Icers now. Send for free data sheet AD-301. Write: B.F.Goodrich Aviation Products, a division of The B.F.Goodrich Company, Akron, Ohio.

B.F.Goodrich aviation products

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MAY 5, 1958—VOL. 21, NO. 25

AMERICAN AVIATION

WORLD'S LARGEST AVIATION PUBLISHERS

What's ahead . . .

Air Force shopping for 917 aircraft in fiscal 1959; B-58 heads list, with B-70 not far behind

by Elizabeth Oswald

AIR FORCE is going to market with a shopping list calling basically for purchase of 917 aircraft in fiscal 1959. As a kind of afterthought, it will also buy approximately 39 B-52Gs and an additional 26 KC-135s. About $4.5 billion will pay the bills for aircraft and basic support.

Heading the shopping list is the Convair B-58 Hustler. Program calls for buying 47 of the planes. It is capable of a maximum speed of about 1,150 mph and weighs approximately 160,000 lbs. It will be refueled by tanker planes. Supersonic capability depends on wanted range without refueling.

Next on the list is the B-70 chemical bomber to be built by North American Aviation, Inc. and powered by six J93 General Electric engines. Air Force hopes to knock 18 months off the development time even though Research Assistant Air Secretary Richard Horner describes the development of the B-70 as "an extremely difficult research and development program" . . . "probably a more difficult development problem than ballistic missiles, for example."

Production characteristics of the aircraft are entirely classified, except that AF officers have disclosed expected speeds of Mach 3 and expected altitudes of more than 60,000 feet.

Describing the plane as a two-speed aircraft, Lt. Gen. C. S. (Bill) Irvine, Deputy Chief of Staff (Materiel), said: "It flies at reasonable speed in takeoff and landing, but its operation in flight and all the compromise has been made for this airplane to be operated at Mach 3 as a normal operating speed."

The B-58 is a substitute for the B-47 and the B-70 ultimately will be a substitute for the workhorse B-52.

More F-101s on list

In the fighter category, AF will buy additional F-101s, built by McDonnell Aircraft. Support equipment for the aircraft in fiscal 1959 amounts to $83 million.

Air Force will buy two versions of the F-105, tactical fighter bomber built by Republic Aviation in Farmingdale. Now described as an "all-weather" aircraft, the single seater D-model and the two seater E-Model are both being bought. A proportion of each model will be included in the Tactical Air Command Squadrons to which they are ultimately assigned.

Next on the list is the Convair F-106, Delta Dart, being produced at San Diego, Calif. The plane is the successor to the F-102, which Convair has just finished producing.

Powered by a Pratt & Whitney J75 engine, the F-106 is described as an air defense interceptor with a built-in all-weather capability. It is armed both with the Falcon air-to-air guided missile built by Hughes, with a TNT-type warhead, and the Genie, MB-1, nuclear rocket built by Douglas.

Ground support equipment for the plane is described as costly because approximately 1,500 items are involved in providing "ground-readiness."

F-108 plane of distant future

Further along in the future is the F-108, long-range fighter-interceptor, now under development at North American. The plane will be powered by two J93 engines, the same engines scheduled to go into the B-70 bomber. Here, according to AF officers, the fiscal 1959 shopping involves only preproduction and development toward this ultimate aircraft."

The F-108 is part of the AF plan to keep enemy aircraft as far away from the United States as possible. Hoped-for speed is Mach 3.

Still further along, probably not ready for major expenditures until the late 1960s, is the nuclear-powered bomber, for which AF has $50 million in the bank in 1959, with another $100 million to be obligated by the Atomic Energy Commission.

Other planes for which AF will shop in fiscal 1959 are the C-133 and the KC-135. In fiscal 1957, AF bought six C-133s at $6.5 million each. Estimates indicate that perhaps 100 of these planes are to be purchased. Primary requirement is for cargo lift. Secondary use is for troop lift. The plane is, according to AF officers, "big enough to carry an Atlas missile." Described as the "Mack truck" of the Air Force, the big turboprop aircraft is powered by T34 engines. Ultimately AF wants jet transports.

AF is also planning to buy both the UCX utility-cargo jet which will have a service ceiling of 40,000 ft., a range of 1,500 nautical miles and a cruise speed of approximately Mach 0.8. It has four engines. Procurement plans now call for a production rate of two a month in 1960 and a fleet quantity of about 240 aircraft.

More trainers required

It also wants 10 utility trainers (UTX). The plane has a projected range of 1,500 nautical miles and a service ceiling of 40,000 ft. Like the UCX, it will be subsonic. Indications are that either the Fairchild J83 or the General Electric J85 will be used as its powerplant.

AF will continue to buy the Cessna T-37, jet trainer. As of now it owns 127 of these planes at a unit cost of $158,000 each. Eleven were produced in February 1957 and the rate is expected to climb to 15 a month by September 1958. Air Force also will buy the Northrop T-38, high-performance supersonic trainer, which is expected to replace the Lockheed T-33.

Last but not least AF plans to buy the H-43, Kaman helicopter, as a rescue plane. It is scheduled to replace AF crash boats. Performance is 104 knots, radius about 75 miles and total weight under 6,000 lbs. The so-called "B" version with the Lycoming T53 engine will be the subject of current procurement. A total of about 38 helicopters is involved.

In working out the buying program, AF dropped the F-100, the C-130 and the T-33 from its shopping list in favor of concentrating on existing and new developments.

This is only a part of the story. As AF budget officials explain it, every effort will be made to live within income in the hardware field. In research, the program is described as "austere." However, in the "off-with-the old and on-with-the new" spirit of the times, AF is trying to wear some of the clothes in the closet a little longer while it waits for newer designs, developments and hardware.

A financial analysis

How aviation industry fared in 1957

by Selig Altschul

AIRCRAFT BUILDERS on the whole recorded a highly successful 1957, establishing new peaks in both sales and net earnings. Most companies surpassed 1956 showings, which were excellent in themselves.

While bulging order books at the 1956 year end pretty well foretold gains in sales and earnings for last year, the same assurance can not now be read for 1958 from the latest available backlogs. Unfilled orders were down considerably at the 1957 year-end from a year earlier. Moreover, the "product-mix" remaining in most recent backlogs, as a whole, is likely to be of lower profit margin sales.

During 1957, many airframe builders were completing production runs on contracts that had absorbed in previous years the tooling costs and other heavy charges peculiar to the initial stages of the "learning curve." For 1958, the conditions of last year will no longer prevail for most companies. On the contrary, heavy development and tooling-up expenses—both of military and commercial—will be heavy without being offset by an increase in volume production runs.

The accompanying compilation of 19 leading aircraft builders places their aggregate 1957 sales at $10,676.5 million, up 25.8% from $8,487 million for 1956. Net income for the group amounted to $313.7 million for 1957, for an average profit margin of 2.94% and representing an increase of 11.3% over the $28.9 million reported for 1956. (Inclusion of Liquid Carbonic in General Dynamics' 1957 figures, as well as of other non-aircraft properties of the holding company, tends to distort comparable industry results for both years slightly.)

The First National City Bank compilation of 41 aircraft and parts companies shows 1957 net income of $374.3 million, a gain of 11% over the $337.2 million reported for the same group in 1956. The 1957 profit margin averaged 3%, down from the 3.4% averaged for 1956.

For 1957, the billion-dollar circle became a little crowded, with five companies having individual sales in excess of that amount. In 1956, only three companies qualified in this respect and then by narrow margins. Boeing led the group with billings of $1,596.5 million, followed closely by General Dynamics with $1,562.5 million in sales.

Cessna may have had the lowest billings among the 19 companies, but it had the best profit margins of the airframe group. The 5.5% net on sales was also after heavy engineering write-offs. This better showing is due to the heavy concentration in commercial aircraft sales which Cessna has been able to accomplish successfully.

The same trend continues for 1958, with sales and earnings well on their way toward making new highs. (The company's sales for the six months ended Mar. 31, 1958, were $44,280,000, compared with $32,237,000 for the like 1956 period. At the same time, earnings reached $2.1 million for the current six-month period, against almost $1.7 million a year ago.)

The Cessna experience is another reminder that important distinctions exist among the various aircraft companies. This selectivity is a factor likely to become even more pronounced in the future.

A number of the aircraft builders having major commercial transport programs under way have had to absorb heavy engineering and development costs in the immediate past and will be required to contend with more of the same in the current year.

This is highlighted by the Douglas experience thus far. Experimental costs for the DC-8 development, by fiscal years (ended Nov. 30):

1952	**$ 758,075**
1953	**1,021,932**
1954	**314,174**
1955	**4,827,678**
1956	**19,110,929**
1957	**48,690,040**
Total	**$84,722,828**

In addition, $6,422,059, represent-

Selected data—aircraft manufacturers

1957 calendar or fiscal year

Year ended 1957	Company	Latest indicated backlog	Sales	Profits before taxes	Pre-tax profit margins	Net income	Net profit margin	Per common share: Earnings	Dividends	% Dividend payout
		(000,000)				(000)				
9/30	Beech	NA	$ 103.9	$ 7.3	7.0%	$ 3,369	3.2%	$4.09	$1.17[1]	28.6%
12/31	Bell	NA	202.3	8.8	4.3	4,346	2.1	1.62	1.00	61.7
12/31	Boeing	$2,452.0	1,596.5	77.7	4.9	38,160	2.4	5.49	.96[2]	17.5
9/30	Cessna	50.3[11]	70.0	8.1	11.6	3,866	5.5	5.04	1.40[3]	27.8
12/31	Chance Vought	670.0	237.3	12.2	5.1	6,152	2.6	5.65[4]	1.60	28.3
12/31	Curtiss-Wright	293.5	598.6	85.3	14.2	40,076	6.7	4.78[4]	2.86[4]	59.8
11/30	Douglas	1,803.6	1,091.4	66.2	6.1	30,665	2.8	8.28	4.00	48.3
12/31	Fairchild Engine	170.0	159.0	1.0	0.6	503	0.3	.17	—	—
12/31	General Dynamics	1,750.0	1,562.5	91.8	5.9	44,278	2.8	4.80	2.00	41.7
12/31	Grumman	280.9	205.2	9.4[5]	4.6	5,236[5]	2.6	2.38	1.75	73.5
12/31	Lockheed	1,280.0	868.3	33.4	3.8	16,309	1.9	5.52	2.40	43.5
12/31	Martin	795.0	423.9	20.9	4.9	9,880	2.3	3.38	1.60	47.3
6/30	McDonnell	728.2	335.3	21.3	6.4	9,672	2.9	6.34	.50[6]	7.9
9/30	North American	581.0	1,243.8	72.2	5.8	33,864	2.7	4.22	2.00	47.4
7/31	Northrop	216.0	281.3	11.5	4.1	5,523	2.0	3.62	1.60	44.2
12/31	Republic	352.4[7]	269.0	12.1	4.5	6,103	2.3	4.15	2.00	48.2
10/31	Ryan	117.0	76.1	3.8	5.0	1,804	2.4	4.02	.40[8]	10.0
12/31	Temco	160.0	119.2	5.0	4.2	2,514	2.1	1.50	.75	50.0
12/31	United Aircraft	1,975.0	1,232.9	106.6	8.6	51,366	4.2	7.96[9]	2.62½[10]	33.0

Notes: [1]—*Excludes 10% stock dividend.*
[2]—*Excludes 4% stock dividend.*
[3]—*Excludes 5% stock dividend.*
[4]—*Includes Class A shares convertible share for share into common.*
[5]—*Includes a special item amounting to $1,455,614.*
NA—Not Available.
[6]—*Excludes 3% stock dividend.*
[7]—*As of Feb. 28, 1958.*
[8]—*Excludes 20% stock dividend.*
[9]—*After preference dividends.*
[10]—*Adjusted to reflect 20% common stock dividend of Nov. 21, 1957.*
[11]—*Military backlog only as of Dec. 1, 1957.*

ing an inventory write-down on the DC-8 program, was charged to manufacturing costs in fiscal 1957.

In the first quarter ended Feb. 28, 1958, Douglas reported further writeoffs of $16.8 million on the DC-8 development. On this basis, more than $107.8 million has been expended on the DC-8 program thus far.

No indication is given as to additional expenses that may be entailed in the DC-8 program. In a recent statement, Douglas declared: ". . . the company expects that earnings in its fiscal 1958 year will be substantially lower than were reported in 1957, principally as a result of fewer scheduled deliveries of commercial airplanes and continuing heavy writeoffs on its DC-8 jet transport program."

Lockheed is known to have very heavy engineering and development costs in its Electra program. The company has merely stated that such costs have been written off as incurred, without disclosing any dollar amounts. As of Dec. 29, 1957, Lockheed reported inventories of work-in-progress on the Electra program at $47.3 million. This amount included production and tooling costs but not any engineering costs.

Pointing out the various uncertainties, the company notes: ". . . it is not presently determinable whether the costs to be allocated to 1958 deliveries will exceed their sales price." Of course, this excludes any additional engineering charges involved in the Electra program.

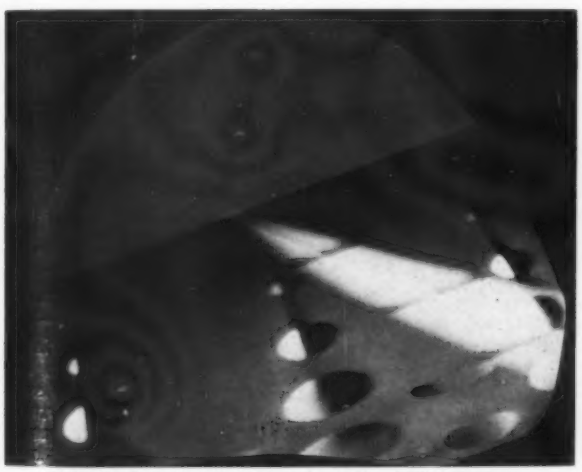
Boeing, in its 707 jet transport development program, also has had to absorb heavy charges. The 1957 annual report reveals that $17 million had been written off during the year, representing research, developmental and general and administrative expenses applicable to commercial programs. It may be presumed that the bulk of this money went into the 707, 720 and allied programs.

General Dynamics, through its Convair Division, is financing the heavy development incident to the 880 jet transport program. No figures are disclosed. This statement is made, however, in reference to the 880: "The costs of such work as well as other research and development work were charged to expense as incurred."

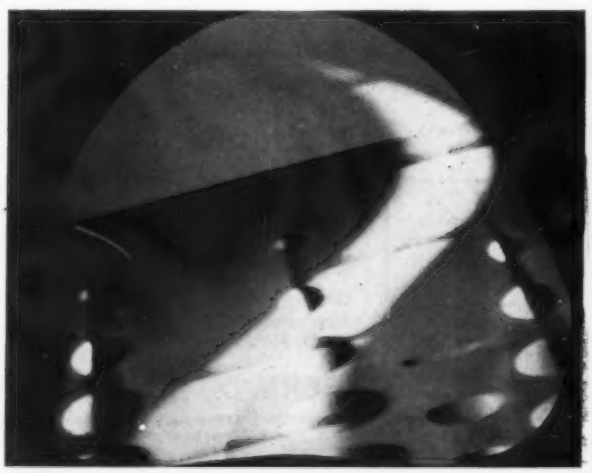
Fairchild Engine has been no exception in experiencing heavy expenses in fathering a new commercial airplane. In fact, this factor was responsible for the company's sharp drop in 1957 earnings. Fairchild discloses that it took a writedown of $8.7 million on the F-27 program during 1957. Moreover, it estimates that if additional orders are not received, it will be required to absorb, on present cost estimates, further losses of $14 million in 1958 and 1959.

Without exception, all progenitors of new aircraft for the commercial market have found this to be a costly venture. It is a condition that importantly tempers the immediate earnings outlook for the industry as a whole as not likely to be on the upgrade. There are other factors, of course, that preclude an industry gain in earnings for 1958. Nevertheless, as in the past, exceptions again will prevail for this year.

ANIP: new navaid system developed from scratch



AIRCRAFT, off course to left, is banked to correct.



HERE, aircraft is on course, following the pathway in a turn.

An aerial "pathway" displayed on a flat-tube television screen is the latest device resulting from the joint Army-Navy instrumentation program (ANIP).

Developed by Kaiser Industries' Aircraft and Electronics Div., the device displays to pilot a ribbon-like strip indicating the direction in which his plane should be headed. The strip curves up or down, left or right, much as a roadway ahead looks to the motorist.

Information establishing the pathway originates externally from selected navigation aids or internally from dead-reckoning sources. Sensors transmit information to a computer where it is compiled and fed to the display and to the autopilot. As new navigation aids are developed, they may be plugged into the system.

In addition, information from different sources may be integrated. For example, ground signals may be combined with weather radar signals to steer the aircraft around adverse weather and back on course to the destination.

ANIP, aimed at simplification of aircraft instrumentation, is under the direction of Cmdr. George W. Hoover, of the air branch of Office of Naval Research, which announced the project.

Douglas Aircraft Co.'s El Segundo Div. is prime contractor and coordinator for the program, which involves some 25 electronics and instrumentation firms. Bell Helicopter Corp. is coordinating development of a similar system for helicopter application.

Participants in the ANIP program virtually threw out existing concepts and started from scratch. To date, $15-20 million has been spent on the program which started five years ago.

ANIP has resulted in many new innovations, including development of flat-tube TV and creation of new materials.

Big strides also have been made in the field of miniaturization—notably by Litton Industries, which developed the digital computer.

Positive control: giant step forward

CIVIL AERONAUTICAL BOARD'S Bureau of Safety took a giant step toward solution of today's air traffic control ills with a proposal to authorize CAA to conduct trials in which it would use positive control in actual operations.

Positive control means that all aircraft (without exception) would be under CAA cognizance at all times in the same manner that only IFR traffic is today.

The CAB staff action, expected to draw bitter opposition from the Aircraft Owners and Pilots Assn., puts into action a concept stymied in Washington committee discussions for the past three years. Industry has until June 25 to air its views on the rule.

Essentially, the proposed rule would empower CAA to experiment with positive traffic control on some selected airway between altitudes of 20,000 and 35,000 ft., using a block of airspace not more than 40 miles wide.

Although Safety Bureau Chief Oscar Bakke did not specify where the experimental route segment would be situated, he hinted that a route segment between Philipsburg, Pa., and Iowa City, Ia., has been considered.

If CAB endorses the experiment and CAA places it in operation, it would mean that all traffic operating in the chosen airspace would be under CAA control at all times regardless of weather.

In addition, the rule would prohibit operation of an aircraft within the experimental corridor without prior ATC approval. All VFR (visual flight rules) traffic would be banned regardless of weather.

Pilots operating aircraft in the designated airspace would be required to have instrument ratings and aircraft permitted in the zone would be confined to those having instruments and equipment required for IFR flight.

Following a pattern used in its experiment with high-density terminal rules several years ago, the Board's staff proposes that the experiment be effective for one year after CAA places it into effect.

In essence, the experiment would extend to all aircraft the "all-IFR" operation now being used voluntarily by airlines in the so-called golden triangle between New York, Washington and Chicago. At Air Line Pilots Assn.'s recent safety forum, pilots, strongly endorsing the safety practice, urged extension of the principle to other high-density traffic zones in the country.

Only opposition to the current plan is anticipated from AOPA, although observers find it difficult to understand how the private pilot group can expect to have a legitimate voice in ATC matters dealing with altitudes above 20,000 ft.

They are convinced that, to date, AOPA alone has successfully harnessed the progress toward advanced ATC concepts to the needs of the Piper Cub flyer and that the CAB experiment is the first healthy step to free these unrealistic bonds.

A similar situation existed with respect to high-density terminal area restrictions over the past several years. In that instance, the Board eventually overruled AOPA objections and put the safety plan into effect.

Strongest possible argument

After more than three long years of waiting for positive action on positive air traffic control, somewhat ironically CAB held its hearings on the proposed rule making on the morning of April 21.

On that same day and at the very moment the Bureau of Safety staff was briefing the Board on the significant ATC step, the strongest possible argument for its adoption was working its way over the teletype lines from Las Vegas, Nev. An Air Force F-100F from Nellis AFB had just collided with a United Air Lines Douglas DC-7 resulting in 49 fatalities.

Without prejudging the cause of this latest incident, ATC specialists immediately observed, the only promise of a future cure is held by positive air traffic control.

The USAF jet was cleared by Nellis tower to descend from 28,000 to 7,000 ft. The UAL DC-7 was cruising at 21,000 ft. By today's ATC system standards both were following procedures with the "see and be seen" concept of separation the only protection against mishap.

The CAB action on the morning of April 21 is designed to erase that shortcoming from today's ATC system.

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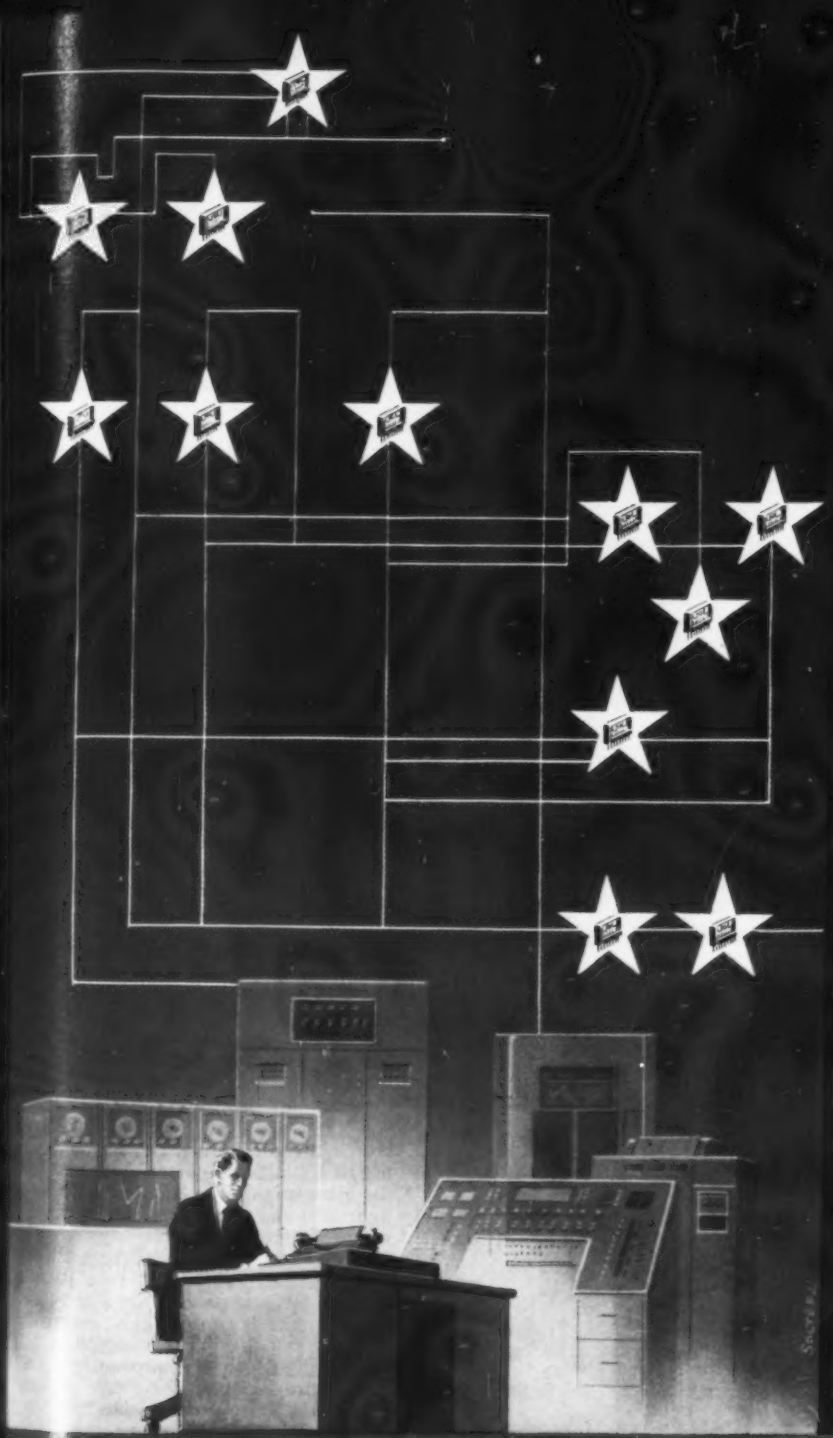

Avco helps to shrink an electronic giant

What's the giant?
Today's mammoth computer.
How is it shrunk?
From the inside, electronically!

Avco research has perfected electronic 'building blocks'—miniature plug-in units, not much larger than penny matchboxes. They replace many vacuum tubes and yards of intricate wiring. Incredibly rugged, they operate perfectly at arctic or tropical temperatures . . . without air conditioning.

And the smaller computer they make possible can be used in hundreds of new ways . . . in industry and for defense. Avco 'building blocks' are already in production for a U. S. Army-U. S. Air Force *portable* computer.

Full name: Transistorized Logical Building Blocks
From: Avco's Research and Advanced Development Division

Avco today — its products are integral parts of the American scene: in homes and industry, on farms, and for defense. Avco works to give America the most dependable equipment, the most advanced ideas and research.

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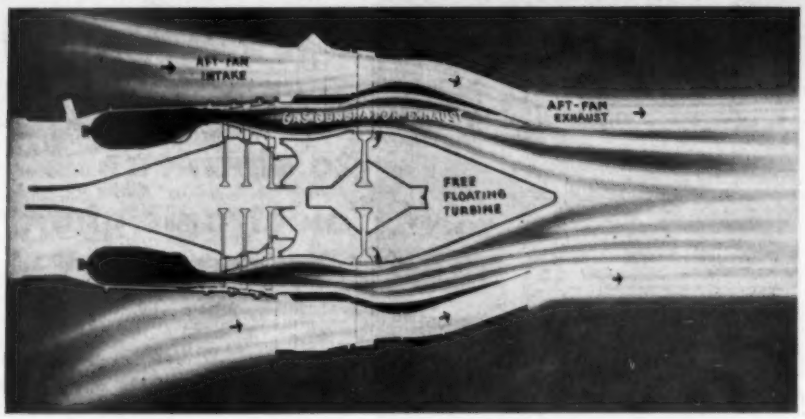

GENERAL ELECTRIC'S aft-fan turbojet: takeoff thrust is up 35%.

P&W battles GE for turbofan lead

The giants of jet engine design—Pratt & Whitney and General Electric—are jockeying for position in a new area of jet development, the turbofan.

The target: a commercial airline market even bigger than that involved in the first round of jet orders. For more than four years now airline engineers have been hammering away at the idea of more economical jets and the turbo-fan is both P&W's and GE's answer. And once the designs are proven, a military buy program is virtually assured.

Here's how the battle shapes up now:

General Electric is testing what it calls an "aft fan" component for its latest production jets, presumably the military J79 and commercial counterpart, the CJ-805. It claims the fan improves fuel economy about 10% and increases takeoff thrust about 35%.

As to design details (see sketch) the GE arrangement employs a single-stage fan that acts as part compressor and part turbine. It is a free-wheeling fan, aerodynamically but not mechanically connected to the main rotor.

In operation, turbine discharge air drives the fan and the fan in turn compresses air that is by-passed through ducting around the engine. The beauty of this approach is that it produces the much-desired economy of a basic by-pass engine yet one that might be realized by retrofit of an existing jet.

GE says the aft-fan, designated CJ-805-21 for commercial models, produces an ideal efficiency for jets in the speed range from Mach 0.8 to 0.9. It sees most use for this speed range by military tankers, transport reconnaissance aircraft and commercial transports.

In elaborating on GE's choice of the aft fan arrangement over that of a front fan, J. B. Montgomery, gen. mgr. of the company's Aircraft Gas Turbine Division, had this explanation: Because the fan is behind the basic engine, says Montgomery, it does not interfere with maintenance or operation of the basic gas generator.

It is in this feature, the front-versus-aft-fan design, that GE and P&W differ sharply.

At P&W, where a front fan version of the J57 is now under test, the favor is all for this arrangement. P&W reportedly has tested both the front and aft designs, too, and settled on the front-fan mounting.

Its reasoning: results with the fan in either location proved to be about the same. With no appreciable difference in performance, P&W chose the fore location for reasons of safety.

Feeling here is that front-fan rpm are controllable because it is part of the compressor. Furthermore, it is not in the hot section of the engine and consequently there is less danger of a blade material problem.

Contention of P&W engineers is that it becomes difficult to set up blading of the aft-fan arrangement because the inner section is a turbine-blade configuration and the outer section a pumping configuration.

P&W designates its commercial turbofan the JT3D and says it will offer an increase of more than one-third in J57 takeoff thrust (this compares with GE's 35%). Fuel consumption, according to P&W, is improved by 15% (GE figure is 10%) and P&W expects noise level will be cut by 10 decibels, presumably at takeoff power.

As in the case of GE, Pratt & Whitney looks on its turbofan as a "kit modification" of the J57. The JT3D, according to one estimate, will use about 90% of the basic J57 parts.

With this array of new jet data, airline engineers have something novel to ponder. It is no longer a choice of the relative merits of the P&W twin-spool versus variable-compressor-stator GE design, but a compounded choice of the twin-spool-with-front-fan versus the variable-stator-with-aft-fan engine.

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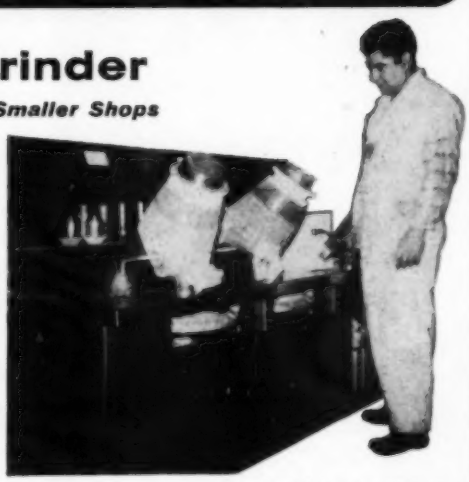

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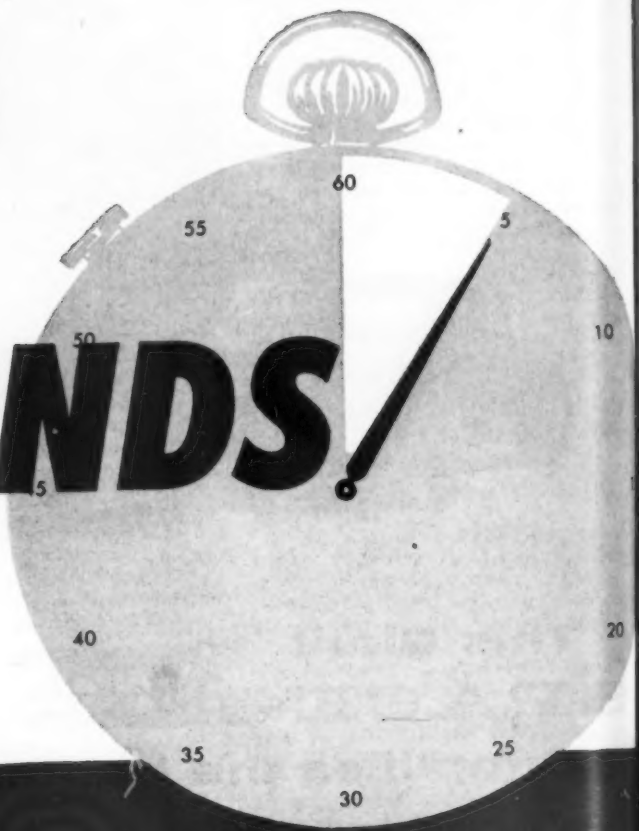

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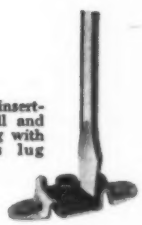

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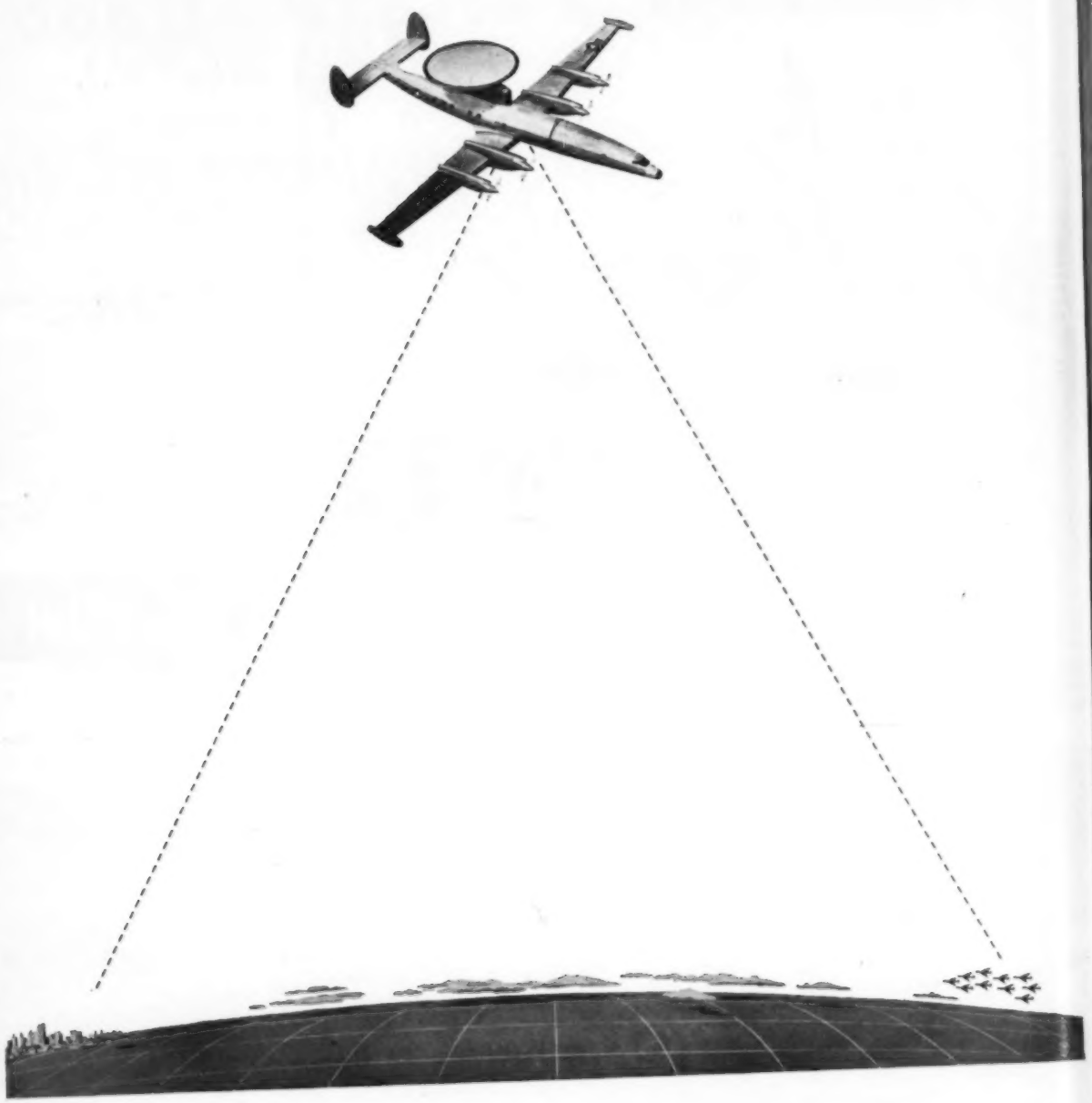

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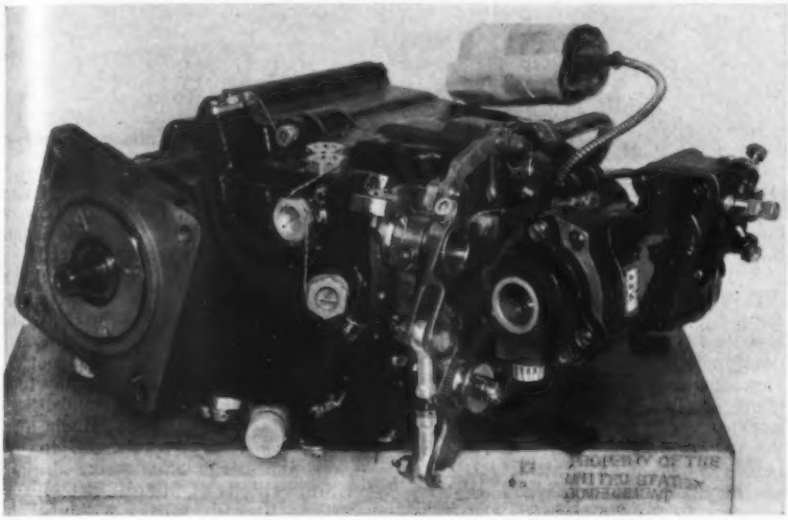

UNITIZED FUEL CONTROL unit designed for helicopter powerplant installation is announced by Chandler-Evans div. of Pratt & Whitney Co., Inc. The TA-1 fuel control is compact and weighs roughly 30 pounds. The unit houses a computer system, a fuel metering system and a power turbine governor which maintains desired engine speeds from sea level to 30,000 ft. Either element of a dual element gear pump delivers full fuel requirements.

Circle No. 1 on Reader Service Card.

Cockpit checkboard

A cockpit checkboard for final pre-takeoff or landing drills offers positive indication to pilots on checkout progress. Manufactured by **International Aeradio Ltd.**, the board may be fastened in the cockpit or carried by the pilot.

The metal board is fitted with slides which move from one side of the window to the other. When takeoff drill is completed, the slides are all in the right-hand position, and the process is reversed for landing.

Circle No. 2 on Reader Service Card.

Small gas turbine

What is said to be the smallest gas turbine ever developed is the **Curtiss-Wright Corp.** Turbo-Mite. The miniature turbine delivers either 5 or 10 hp, weighs only 30 lbs. Designed to be inaudible at 100 ft., the twin-spool, coaxial turbine will operate from —65° to 165°F, under practically any climate conditions.

The engine is lightweight, compact and portable, and can be used as a portable pump, auxiliary power unit, pneumatic source of portable ground power.

Circle No. 3 on Reader Service Card.

Eight-day aircraft clock

Aircraft clock designed for the professional and executive pilot is offered by **Aircraft Components, Inc.** The 8-day clock features a legible dial and fits the standard 3⅛" instrument panel opening.

The clock has a 2¾" face, white hands on a black face, sweep-second hand, elapsed time hands, combination 12- and 24-hour dial markings and a 7 o'clock position reset knob. It also has four-hole mounting and a rate adjustment screw.

Circle No. 4 on Reader Service Card.

Insulated food-tray carrier

A food-tray carrier insulated by urethane foam is announced by **Pynn-Hawley Co.** Two pounds of dry ice in the carrier will keep food at 40°F for 12 hours. This formerly required 7 lbs. of dry ice.

Urethane foam in the carriers is sandwiched between sheets of plastic which will not de-laminate in dishwashing machine temperatures exceeding 200°F. Shelves of the carriers hold either 12 full trays or 24 inserts that go in combination with other inserts for a full tray.

Circle No. 5 on Reader Service Card.

Rain repellent

Improved rain repellent for cockpit windshields is marketed by **Dow Corning Corp.**, reduces from five to two the number of applications required in past by FC-10 repellent. New Dow FC-30 also eliminates wax overcoat treatment. A development of National Research Council of Canada, FC-30 treatment is being tested by RCAF, U.S. government and a number of commercial airlines.

Circle No. 6 on Reader Service Card.

Coaxial stick shakers

Coaxial Stick Shakers will warn pilots in critical speed or flight areas. Produced by **Safe Flight Instrument Corp.**, the stick shakers are designed for Century Series jet fighters and all aircraft with power boost flight control systems.

The new shaker pivots below its drive motor, and inner bore dimension is made larger than control stick diameter. It operates on 28 volts dc, weighs less than a pound and is said to provide a sharp effective rapping on the stick.

Circle No. 7 on Reader Service Card.

Industry Aids

T58 TURBOSHAFT ENGINE: 18-page brochure (GED-3461) gives complete technical information on the T58 small gas turbine engine designed for helicopters and VTOL aircraft. It features charts, cutaways and mechanical aspects of the engine. General Electric Co.

Circle No. 8 on Reader Service Card.

GEISSE SAFETY GEARS: 8-page booklet explains and diagrams the theories and wheels, nose wheels and 1 bo HH advantages of safety gears for tail wheels, nose wheels and four-wheel units. Geiss-Gears, Inc.

Circle No. 9 on Reader Service Card.

Heliport design guide

Aircraft Industries Assn. offers a 12-page design guide for heliports that includes photos of existing heliports and complete specifications for helicopters and heliports, approved by the Civil Aeronautics Administration. Booklet may be obtained from the Helicopter Council, Aircraft Industries Assn., 610 Shoreham Bldg., Washington 5, D.C.

VIBRATION MONITORING: A loose-leaf catalog of transistorized vibration equipment for turbine engines. Booklet describes in detail two accelerometers, two vibration pickup devices and one velocity pickup type. Systems Div., Consolidated Electrodynamics.

Circle No. 10 on Reader Service Card.

FILLER CAPS: 4-page brochure lists wide variety of pre-tooled filler caps and components for aircraft, missile, ordnance and other fueling systems. Speco Div., Kelsey-Hayes Co.

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Brussels Fair: accent on transport

by Anthony Vandyk

BRUSSELS—"We're burning," the sales representative said as he surveyed the uncompleted U.S. aircraft manufacturers' stands at the World's Fair. "I wish I were," I replied, shivering after a night in the unheated motel for exposition visitors. The temperature was around freezing. My wish came true a few seconds later when he told me what was biting the U.S. aircraft industry representatives.

All manufacturers had been asked by the Belgian authorities to have no military exhibits. The U.S. industry went along with this request even though it meant that the cream of its products could not be displayed. Convair, for example, couldn't show its Atlas, F-106 or B-58. Boeing had to restrict its exhibits to the 707—no Bomarc or B-52 displays. It was the same for the other manufacturers.

"A pity—but if the Belgians want it that way, we'll go along with them," was the general attitude among all aircraft firms with displays at the exposition. The British, Dutch, French and Russians all respected the Belgian wish and made their shows purely civil.

Camouflaged Hawker Hunter

All seemed to be well until a few days before the fair's opening when a military aircraft made its appearance in the exposition's transport pavilion. Right amid all the U.S. stands with their transport themes appeared a Hawker Hunter in the camouflage and markings of the Belgian Air Force. This license-built aircraft was on the stand of Sabca. This Belgian manufacturer does an excellent job of producing the Hunter and probably arranged for the fighter to be shown at the fair without knowing that no one else was displaying military equipment.

However, whatever the reason for the presence of the Belgian fighter, efforts to have it removed (or, as a last resort, painted white) were of no avail. It stayed where it was first put—next to the full-size Caravelle mockup and the Electra interior. Its presence certainly mars the transport section of the fair.

By the time these words are printed all U.S. manufacturers' stands here should be completed. The only one that was ready on the opening day was United Aircraft's, and this thanks only to the willingness of Norm Clements and his associates actually to set to with hammers, screwdrivers and paintbrushes in order to have the display completed on time. This was all the more creditable in view of the zero temperature conditions and the fact that the transport pavilion has no walls and is unheated. Norm and his boys had to buy duffle coats to withstand the conditions.

The United Aircraft stand has one item never shown before—a model of the S-62, the Sikorsky helicopter which is basically a turbine-powered (GE T58) development of the S-55. This will be viewed with particular interest by Belgian visitors to the fair, since Belgium is extremely helicopter-minded. During the opening ceremonies several of Sabena's S-58s and Vertol 44s hovered overhead. There is a special heliport adjacent to the fair grounds.

Atomic insignia

Sabena has painted the atomic insignia of the fair on the nose of all its aircraft. The Belgian flag airline is well represented at the fair—there is a mockup of the interior of a Sabena Boeing 707 as one of the main features of the transport pavilion. Not a few visitors thought the Caravelle had been bought by the Belgian airline since the big "S" which Sud Aviation paints on the tail of its aircraft resembles the "S" which appears on the tail of all Sabena planes. It could well be that Sabena will buy some Caravelles, since it urgently needs medium jet equipment. But at this writing no order has been placed.

What else was of interest in the transport pavilion? The huge model of the Idlewild terminal area on the Port of New York Authority stand and the effective IATA presentation with a "scoreboard" showing the number of air passengers to the very minute. All the U.S. manufacturers' stands probably will be excellent when ready. It was good to note that two airframe/powerplant teams had joint stands—GE and Convair, and Allison and Lockheed.

We did not have time to make a full investigation of all the aviation exihibits, but we hope to be back when all is ready. The Russians have models of all their transports, but were not allowed by the Belgians to bring any full-size aircraft into the fairgrounds. Several airlines have shows of their own outside the transport pavilion. In the various national pavilions there also are aviation exhibits of interest.

The Brussels fair is a "must" to any visitor to Europe this summer—and the aviation exhibits alone are worth the trip. A word of warning, however. Come to the fair with good, stout, comfortable shoes—distances are very great. And come to Brussels with plenty of money—prices are sky-high (a room in my unheated motel with no bathroom or toilet costs £12). But the fair is worth it.

BRIEFS

Britain's **Fairey Rotodyne** successfully has completed transition from helicopter to autogyro. VTO airliner has made 71 flights since it initially flew last Nov. 6. **Lockheed Aircraft Service** will maintain **Linea Aeropostal Venezolana's** fleet of seven Super Constellations under a contract signed last month. Maintenance will be done at LAS' New York base.

Lufttransport Union (LTU), German nonsked based at Frankfurt, has purchased two Douglas DC-4s formerly used by **Twentieth Century Aircraft.** Price paid for two aircraft reportedly was $730,000, with delivery scheduled this spring.

New piston transport rolls out in Italy

AGUSTA AZ-8, new Italian 26-passenger, four-engine transport rolled out recently is designed for unpressurized operation on stage lengths of 375 to 500 miles and can operate out of small airports. Powered by four Alvis Leonides engines, aircraft is said to take off in less than 2,000 ft. at a gross weight of 24,900 lbs. With full payload of 9,250 lbs., maximum range of 600 miles can be achieved with cruise speed 233 mph at 10,000 ft. Dimensions: length, 63′ 9″; span, 83′ 8″; height, 21′ 8″

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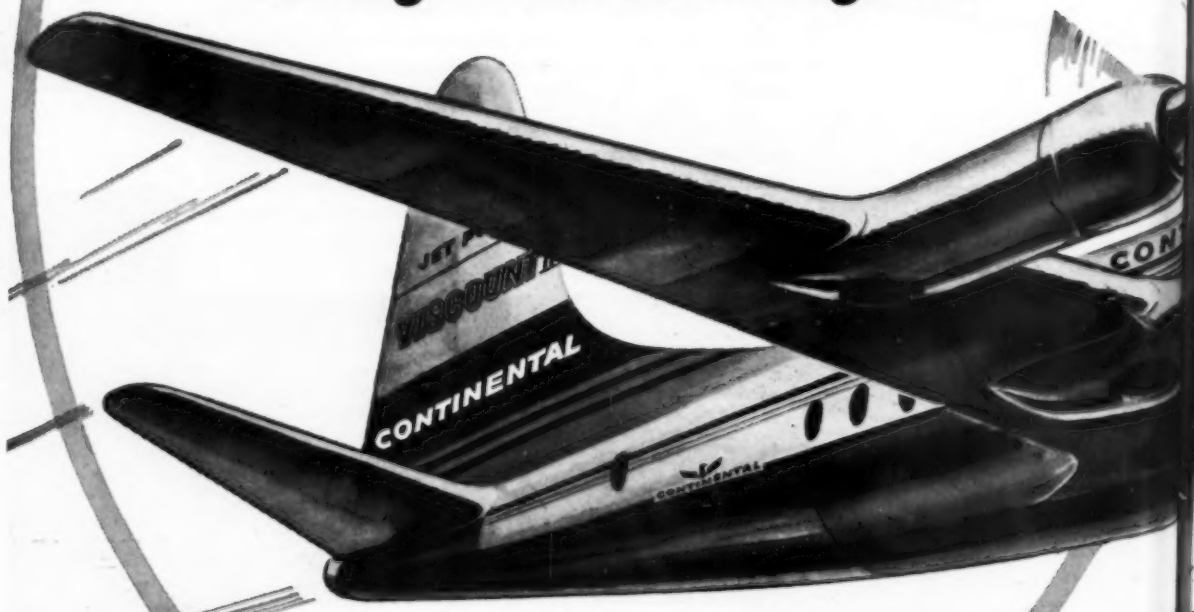

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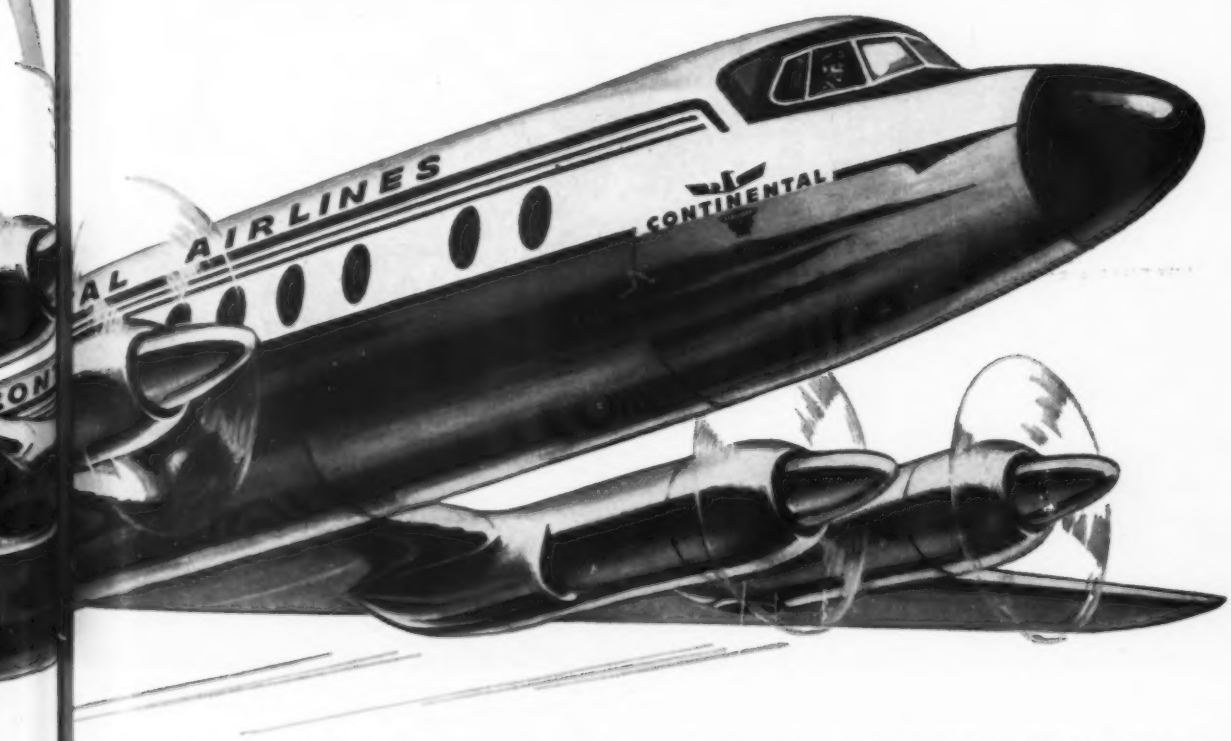

On May 28th at 8:00 A.M. the first commercial jet-power airliner ever to leave Chicago for the West will streak down the runway and head for Los Angeles.

The Jet Power Viscount II will be making its world premiere with this initial jet-power flight to the West. These 56-seat luxury airliners are custom-built for Continental by Vickers-Armstrongs Limited. Rolls-Royce builds the 4 gas turbine engines. This is the newest and fastest airliner in America and *you'll see, hear and feel the difference!*

For example, you'll be amazed at the comparative silence and smoothness of your flight. You'll enjoy the view from the large, oval picture windows. You'll relax in the reclining king-size easy chairs and appreciate the convenience of having your own fold-away table. There is a front compartment and a pleasant rear lounge. The decor is restful and luxurious. Temperature is automatically controlled and the cabins are fully pressurized. Radar, of course.

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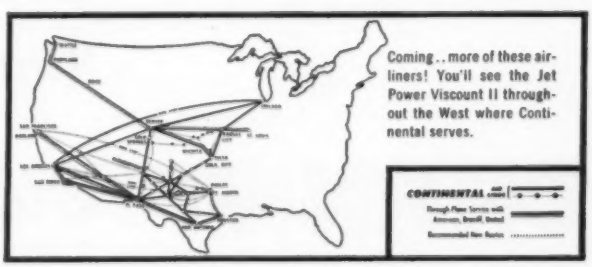
Make reservations now. Phone or write any Continental Airlines ticket office or see your Travel Agent.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MATS: Pentagon's air transport monster

by Robert Burkhardt

CANCEROUS is a strong word, an emotionally-charged word. But it is a most apt word to describe MATS—the Defense Dept.'s gargantuan Military Air Transport Service.

Cancer is defined by Webster as "a malignant evil that corrodes slowly and fatally." It can also be said that two important symptoms of malignant cancer are a general loss of health caused by acute anemia, and a numbing fear of what is to come. Often there is a denial that the cancerous growth even exists, with both the victims and their friends insisting that this is no more than benign and healthy bulge.

Such is the case with MATS, whose victims are this country's common air carriers of freight and passengers. Some of these are already dead. Others are aroused and fighting back, clinging to life with every shred of their corporate being. And there are still a few remaining airlines who are trying to ignore the terrible threat of what has been publicly branded as the "world's largest free airline."

Before considering the plight of its victims, one should examine MATS itself. This organization was formed in 1948 as a merger of the Air Transport Command and the Naval ATS, and embraced a number of weather, air rescue and ground operations of the Air Force, Army and Navy. Originally it was planned that MATS be a training organization, nucleus of a vast air fleet to supply logistical support—high-speed movement of men and materials to global battlefronts—in time of war or other national emergency.

This idea was endorsed with enthusiasm by Congress and the entire airline industry. Optimistic Congressmen hoped that a centralized MATS would be a way to eliminate costly duplication of the armed services' efforts in the air transport field, and at the same time would materially improve what was then called the U.S. "defense posture."

At the same time, the U.S. air transport industry, growing by leaps and bounds as new routes were opened and larger and faster planes came into service, saw in MATS a chance to work in partnership with the armed services. Out of this, it was hoped, might come a vigorous and healthy civilian air transport industry, backed by an existing system of overseas MATS bases—including weather reporting, air traffic control, air rescue service and other support functions—all operating in conjunction with a nucleus fleet of late-model MATS aircraft.

Not too much is known about early MATS equipment and schedules and, for that matter, information about present operations and equipment is hard to come by even now. All told, 279 transports were taken over from Air Transport Command and the Naval ATS, mostly twin-engine Douglas-built C-47s and 4-engine C-54s. Early schedules listed few and irregular flights.

This humble beginning was no drawback to MATS planners. Right from the start MATS set out to become the biggest airline in the world by the simple expedient of offering free rides and free freight. And the number of takers has increased by leaps and bounds; today MATS traffic includes the majority of all U.S. military personnel moving to and from stations overseas, plus officers of NATO and other allied forces, employes of the State Dept. and other government agencies, servicemen's wives and families, and everyone else who can qualify as a "guest of the government." Freight shipments and government mail follow the same pattern.

It wasn't intended this way. To make certain that MATS was in fact a military operation, geared for a many-fold expansion in time of war, a clear policy line was laid down by the Secretary of Defense, and re-emphasized by the Secretary of the Air Force: as many military passengers and as much military freight as possible was to be shipped by regular commercial aircraft.

Service to out-of-the-way points, such as Thule and Ascension Island, was the job of MATS, since no commercial air line could take this traffic. And in time of peak loads, when the regular scheduled "common carriers by air" were jammed up and delays expected, MATS could fly the goods and carry the GIs.

Good idea, said Congress. Sound defense policy, said the commercial air lines. And they were right, except for one small detail: MATS has never paid any attention to these policies, although repeatedly reminded of them by responsible committees of Congress.

Thus it is no wonder that MATS has grown so fast it has today become *larger than all U.S. overseas commercial air carriers put together.* The table shown here is actually an understatement of the situation, since official

MATS—indices of growth

	1954	1955	1956	1957	1958 Estimates
Ton-miles flown (millions)	384	645	769	770	1,034
Cost of operations (millions of $)	153	187	206	224	.....
Aircraft assigned	1,379	1,456	1,454	1,393	.....
Freight tonnage	75,173	120,517	150,125	149,531	250,000
Passengers carried	440,359	617,100	700,250	748,841	800,000

MATS: Quo Vadis?

CONGRESS:

"The government should, to the greatest extent practicable, adjust its use of air transportation so as to use existing unutilized capacity of United States air carriers."

HOOVER COMMISSION:

". . . only after commercial carriers have been utilized for maximum practicable extent, should transportation on service carriers be authorized."

THE PRESIDENT'S AIR COORDINATING COMMITTEE:

". . . the Department of Defense should continue its policy not to engage in competition with private industry, and to support the expansion of the nation's civil airlift capability on an economically sound basis."

MATS' Atlantic and northern schedules
(MARCH 1958 and MARCH 1957)

	Passengers		Cargo		Total	
	1958	1957	1958	1957	1958	1957
Europe	**470	**294	194	384	664	678
North Africa	80	36	166	124	246	160
Iceland	32	40	28	28	60	68
Greenland	72	62	100	96	172	158
Newfoundland	...	...	16	24	16	24
Labrador	22	18	36	50	58	68
Azores	14	14	26	14	40	28
Bermuda	12	24	...	10	12	34
Ascension I.	*30	*8	...	...	30	8
Churchill	*8	*4	...	...	8	4
Totals	740	500	566	730	1,306	1,230

*—Combination Passenger/Cargo.

**—Some Passenger/Air Evacuation.

NOTE—This is an exclusive compilation by AMERICAN AVIATION. It is based on official MATS schedules, which understate the actual traffic movement in two particulars: *first*, much new and larger equipment has been put into service during the past year so that freight and passenger capacity has increased more than the actual increase in schedules would indicate, and, *second*, scheduled operations are on the average only half of MATS' operations, since a large number of irregular or "training" flights that also carry passengers and cargo are also flown each month.

MATS schedules are the minimum to be flown.

By actual count, there are usually about twice as many flights actually flown as are scheduled. In addition, the increase in scheduled traffic is understated, since new and much larger equipment is constantly being put into service.

How have Congress and the airlines reacted to this? Repeatedly, Congress has tried to slow down the unchecked growth of MATS, only to be airily ignored. Not all congressmen are opposed to the burgeoning civilian role of MATS: Rep. L. Mendel Rivers is a strong supporter of bigger and better government air lines. And why not? He just happens to have a major MATS base located in his home district in South Carolina.

As for the carriers, the reaction to MATS has been varied: a very few aroused and struggling; some quiet and inclined to ignore MATS insofar as possible; others in such terminal stages of financial ill-health that they no longer care about MATS' dog-in-the-manger policies towards government passenger and freight traffic.

Among the quiet American carriers are Pan American, Trans-World and Northwest. They repeatedly have refused to speak up at the various congressional investigations into MATS. When queried by reporters, they maintain a tight-lipped silence on the fact that MATS parallels their global routes (AMERICAN AVIATION, April 21) and carries more freight and passengers than all three of these overseas carriers combined.

Thoughtful airline spokesmen are quick to emphasize the fact that the growth of MATS need not be malignant. MATS is a key weapon in the U.S. anti-Soviet arsenal; perhaps it should be even bigger. Nobody—repeat, *nobody*—takes issue with the military job that is the primary responsibility of MATS.

But what is being viewed with increased fear by taxpayers, congressmen and airline officials alike, is the twisted concept now dominating the thinking of MATS' high command. This concept has now resulted in establishment of the largest State-owned airline in the world; one whose no-charge or nominal-charge policies are isolating and threatening to bankrupt its commercial competitors, and will continue to do so until either Congress or some other higher authority takes firm and corrective surgical action.

BRIEFS

TWA expects to receive an "unlicensed" Boeing 707-131 by December or earlier for training purposes, vp R. W. Rummel says. Company expects to receive six more jets in following two months. First of more powerful 77-331s will be delivered in October 1959.

Air Transport Assn. calls the 1957 scheduled airline safety record of two-tenths passenger fatality per 100 million passenger-miles "unparalleled in airline history." The 1956 record was five-tenths. In 1957, the airlines flew an all-time high of more than 31 billion passenger-miles.

There now are more than 800,000 subscribers to the Universal Air Travel Plan, with more than 100 scheduled airlines participating. The 1957 year-end figure for total subscribers was up 30,000 over the previous year, with greatest gains in the international field.

First Fairchild turboprop F-27 undergoes flight tests

TWIN-TURBOPROP Fairchild F-27 transport made its maiden flight late last month, now is in its flight-test program. Powered by two Rolls-Royce Darts turning Rotol props, the F-27 has been ordered by 14 airlines in the U.S., Alaska, Canada and Latin America. West Coast Airlines, with six on order, is scheduled to get first delivery in June.

FOR MEDIUM/LONG RANGE AIRLINERS

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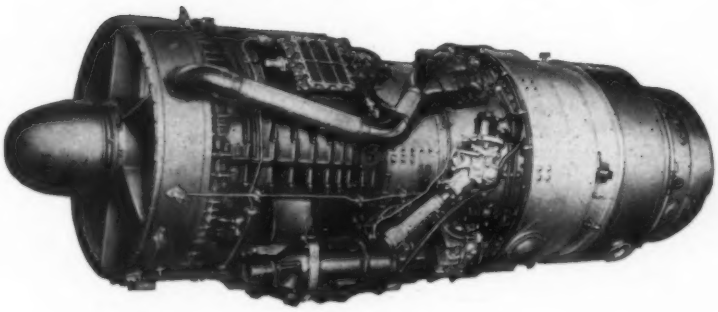

The Civil Avon powers the de Havilland Comets ordered by British Overseas Airways Corporation and British European Airways and the Sud-Aviation Caravelles ordered by Air France, Scandinavian Airlines System, S.A. Empresa de Viacao Aerea Rio Grandense (VARIG), Aero Osakeyhtio (Aero O-Y Finnair.) and Air Algerie

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Bendix Radio Division

Bendix AVIATION CORPORATION

Circle No. 103 on Reader Service Card.

National's $75,000 contest: new sales pitch

by Eric Bramley

WANTA WIN a $25,000 house in Florida and one year's salary up to $10,000? Or an Alaskan seal coat, a man's wardrobe, an English-built station wagon, an air-conditioner, or one of hundreds of other prizes?

Ride National Airlines and fill out a blank, completing this sentence in 25 additional words or less: "Florida living appeals to me because . . ."

Does this have a familiar ring? It should, because it's exactly the same type of contest being widely used today to sell soap, cigarettes, etc. This is the first time it's been offered by an airline.

With an apprehensive eye cocked toward all those seats that are going to become available for sale with the coming of the jets and turboprops, NAL's Walter Sternberg (senior vice president-traffic, sales and public relations) decided the time has come to try some new merchandising. He's out after new markets and a consumer contest may be the way to tap them. At least it's worth a try, reasoned Sternberg.

In addition to being a new approach to the sale of travel, NAL's contest is of more than passing interest to other airlines because it has raised a question of industrywide importance: Is such a contest legal? This hasn't been finally answered.

The contest offers prizes with a total value of $75,000. Section 403(b) of the Civil Aeronautics Act states that "no air carrier . . . shall . . . refund or remit any portion of the rates, fares or charges so specified . . ." And some of NAL's competitors have charged that the airline is, in effect, making an illegal rebate to its passengers.

NAL pooh-poohs the charge. It claims it checked every possible legal angle before starting the contest. And it presents interesting arguments to support its position.

In the first place, NAL points out that it isn't paying for any of the $75,000 worth of prizes, so how can it be rebating anything? Prizes are being donated by companies interested in promoting the sale of their products. The house, for example, is being given by community developers Desser and Garfield and by Heftler Construction Co., Carol City, Fla.

Donors get their names in NAL promotional pieces and in newspaper ads. And they're identified with a contest that promotes Florida.

Also, argues NAL, contestants have to do something beyond just being a passenger. They have to complete the sentence and they're competing with thousands of other people.

And, it adds, as long as we're talking about gratuities and rebates, let's look at some of the items in the industry that have real and substantial monetary value—free drinks on airplanes, free orchids, flight bags, silver spoons, elaborate meals on competitive flights, siesta seats. Are these illegal?

Whether NAL's arguments will prevail remains to be seen. Whether the contest is illegal will probably be decided finally by action, or lack of action, on the part of the Civil Aeronautics Board. Meanwhile, at this writing, the contest goes merrily on its way and isn't scheduled to end until June 30.

It's still too early to tell whether this new sales promotion is producing results. But there's considerable interest in Sternberg's reasoning.

"Recession, set-back, depression, slack-off—call it what you like—but the fact is everywhere evident: disposable dollars are not as plentiful or at least not as easy to get at as they used to be," he says.

"We're fighting for America's disposable income, the decision to buy a vacation instead of something else. Today, many industries are competing with us for the disposable dollar. In our present economy this dollar is no longer labeled 'vacation money.'

"The people are saying: 'Shall we use our money to buy a TV set, or a new range, or new furniture—or should we spend our money on a vacation in Florida?'

"In this economy, people are looking for more value for the money they spend. Right now, over 50 contests are being nationally advertised.

"Most of the sponsors sell things that could not be considered an actual necessity. In short, they're all after that disposable dollar.

"They know from long experience that the contest is the 'old faithful' of business when it comes to stimulating sales. For the contest gives the consumer, in addition to a good product for his money, an opportunity to use his creative skill to get back a hundred dollars or more for every dollar spent.

"The time has come for the airline industry to stop fighting for travel dollars within a static market and, instead, reach out for new disposable income to expand the total market. In short—create new business.

"National is aware that a contest is no substitute for quality. Its basic purpose is to persuade people to sample a product or a service. A 'kid-gloves' service campaign will back up this 'bare knuckles' merchandising."

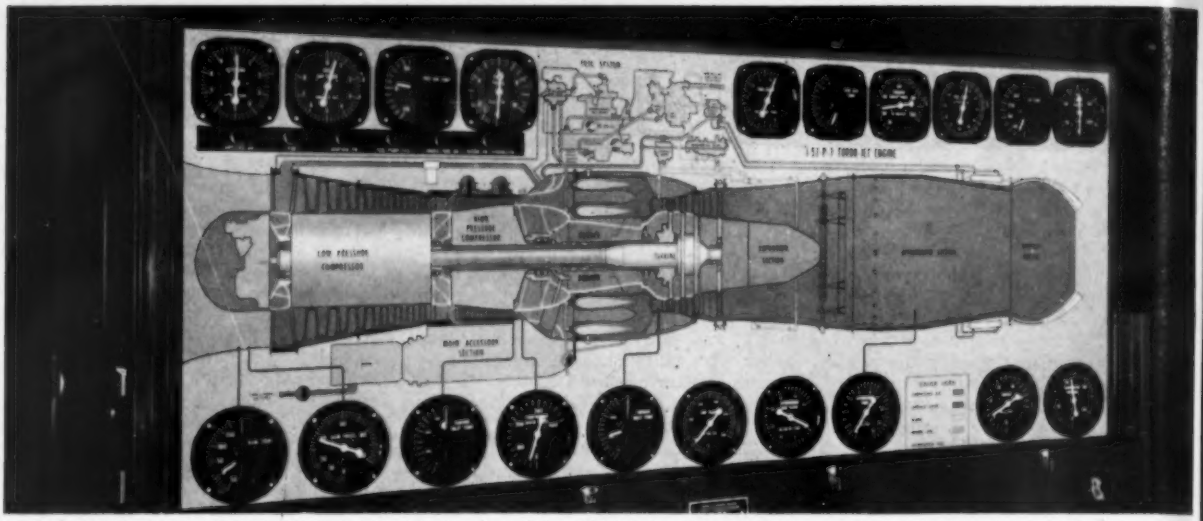
NAL is also giving its employes an extra incentive to boost sales during the contest. Each month, the company sets a sales quota. It then puts up 25 portable TV sets. For every 500 passengers over quota, another TV is added. The names of all employes—sales, maintenance, operations, etc.—are placed in a barrel. At month-end, names are drawn to see who wins.

And here's what happens when the winner of the house is selected: The reservations agent who booked the winner gets a TV set. If the ticket was for a roundtrip, he is awarded $500 cash in addition to the TV. The ticket agent that wrote the ticket gets a similar award. And each member of the crew that flew the winner receives a TV set.

As stated, Sternberg has his eye on the jets. These planes, he says, will depreciate at a rate of $2.28 per minute, day and night for five years, whether they're producing or not. He intends to find out whether his contest is one of the gimmicks that will fill the seats.

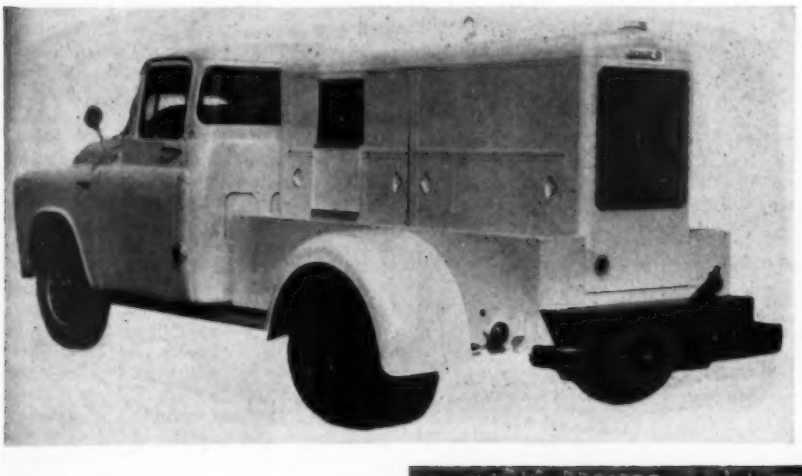
NATIONAL'S promotional folder describes prizes to be won in contest.

THE ARMY LIBRARY
WASHINGTON, D. C.

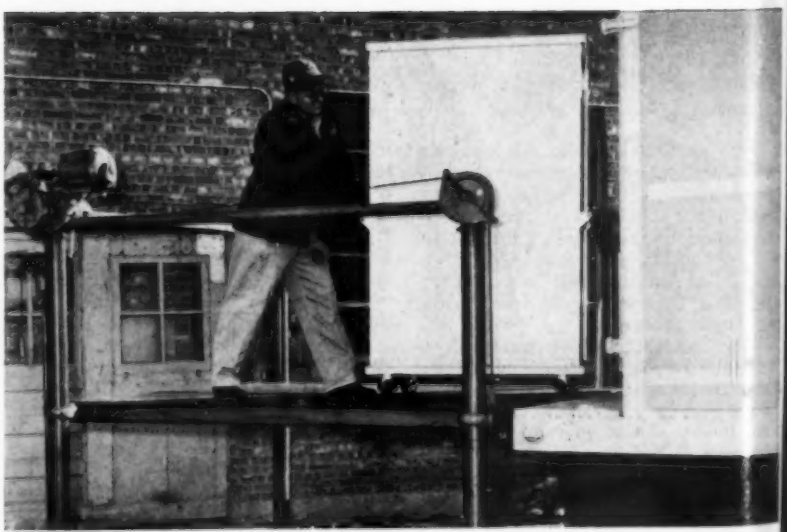


JET ENGINE TROUBLESHOOTING aid, developed for USAF by Burton-Rodgers, Inc., Cincinnati, O. is being studied by commercial airlines for teaching theory of operation, maintenance and trouble diagnosis. Model above (only top half shown) is for Pratt & Whitney J57, but USAF is procuring 10 for P&W J57, J75 and T34; General Electric J79 and Allison T56 engines. Lockheed has ordered a single unit for Allison 501-D13 (commercial T56).

What's new in ground equipment



IN A PATTERN of planning that apparently is based on continuing piston transport ground handling practices in jet operation, American Airlines placed an initial order for more than 150 of these 400-cycle ground power units built by Motor Generator Corp., Hobart Bros. affiliate, Troy, O. AA units will range in capacity from 12.5 kva to 125 kva. Company also holds orders from Pan American for similar equipment. ←



HOT MEALS FASTER is United Air Lines' objective behind development of this fully automated equipment to handle mobile tray carts for aircraft food service. Unit was designed by UAL engineers in cooperation with Special Products Div., The Colson Corp., Somerville, Mass. Platform lifter installed outside UAL flight kitchen raises food carts to truck level. Upon arrival at aircraft, trailer portion of truck is hydraulically raised and moved forward at plane floor level so that carts can be wheeled directly into aircraft. New procedure and equipment eliminates time-consuming manual operations. →

Airlines Report executive salaries

Annual reports of 1957 salaries, other compensation and shareholdings of officers and directors of the following airlines have been filed with the Civil Aeronautics Board. Formerly designated Schedule E reports by the CAB, these are now designated Schedule G-42 reports.

Figures given are salaries unless otherwise stated.

AMERICAN AIRLINES

OFFICERS: **C. R. Smith**, pres. & dir., $81,278; **Wm. J. Hogan**, sr. vp-finance, $66,278; **C. W. Jacob**, sr. vp and secy., $63,139; **O. M. Mosier**, sr. vp-operations and dir., $66,278; **C. R. Speers**, sr. vp-sales, $55,139; **T. L. Boyd**, vp, $30,000; **G. J. Brandewiede**, vp, $32,500; **S. C. Dunlap**, vp, $23,139; **L. E. Glasgow**, vp and controller, $35,000; **W. H. Johnson, Jr.**, vp, $36,569; **P. W. Kayser**, vp, $38,139; **W. Littlewood**, vp, $34,069; **Willis Player**, vp (9-1-57*), $11,667; **G. M. Sadler**, vp (9-20-57*), $17,502; **N. L. Smith**, vp, $30,000; **R. W. D. (Rex) Smith**, vp, $35,000; **Shepard Spink**, vp (4-1-57*), $26,250; **E. C. Taylor**, vp, $27,905; **G. C. Van Nostrand**, vp, $38,139; **Marvin Whitlock**, vp, $27,500.

P. G. Larie, treas., $23,442; **M. G. Beard**, asst. vp, $23,875; **J. V. Dooley**, asst. vp, $18,883; **R. A. Goebel**, asst. vp, $22,500; **W. B. Hickman**, asst. vp, (5-15-57*), $21,587; **T. F. Holden**, asst. vp, $17,442; **J. D. Hungerford**, asst. vp, $20,000; **W. C. Lawrence**, asst. vp, $25,000; **D. F. O'Donoghue**, asst. vp, $25,000; **M. L. Rinehart**, asst. vp, $27,942; **M. W. Shipley**, asst. vp, $21,256; **A. E. Smick**, asst. vp, (5-15-57*), $20,272; **C. H. Startup**, asst. vp, (11-1-57*), $15,429; **W. G. Whitney**, asst. vp, $23,442; **F. C. Wiser**, asst. vp, (5-15-57*), $13,487; **V. J. Long**, asst. controller and asst. secy., $22,000; **C. N. Oursler**, asst. controller, $27,569; **W. J. Corbett**, asst. treas. & asst. secy., $17,943; **A. A. Paradis**, asst. secy., $15,942; **A. R. Bone, Jr.**, regional vp, $30,639; **W. N. Bump**, regional vp, $31,569; **R. L. Fitzpatrick**, regional vp, $20,825; **S. G. King**, regional vp, $26,569; **H. J. Lyall**, regional vp, $20,000.

NOTES: *Date of assuming position.
No salary reported for directors.

PERSONS OTHER THAN directors, officers and employes who were paid more than $10,000 for personal services during 1957 were: **Alvord**, Washington, D.C., legal, $20,881; **Broad & Nelson**, Dallas, architect, $48,904; **Covington & Burling**, Washington, D.C., legal, $311,657; **Debevoise, Plimpton & McLean**, New York City, legal, $137,462; **W. G. Gilman & Co.**, N.Y.C., economic consultant, $19,069; **Kahn & Jacobs**, N.Y.C., architects, $47,378; **Lovelace Foundation**, Albuquerque, medical research, $11,683; **McDonald, Kuhn & McDonald**, Memphis, legal, $12,080; **McKinsey & Co., Inc.**, N.Y.C., management consultants, $109,142; **J. P. Morgan & Co.**, N.Y.C., investment bankers, $13,733; **Morrison, Lloyd & Griggs**, Hackensack, legal, $12,779; **James O'Donnel**, N.Y.C., consulting engineer, $16,278; **Opinion Research**, Princeton, N. J., marketing research, $198,214; **Pletzinger, Dechert & Kielty**, Chicago, sales planning, $28,840; **Real Estate Research**, Chicago, marketing research, $14,137; **Wallace, Clark & Co.**, N.Y.C., management consultants, $36,491; **White & Weld**, N.Y.C., investment brokers, $12,000; **Wilkie, Owen, Farr, Gallagher & Walton**, N.Y.C., legal, $10,108; **Arthur Young**, N.Y.C., public accountants, $43,508; **American Red Cross**, contribution, $20,150; **Flight Safety Foundation**, contribution, $15,000; and **Greater New York Fund**, contribution, $12,000.

TRANS WORLD AIRLINES, INC.

OFFICERS: **Carter L. Burgess**, pres. & dir., (1-23-57*), $30,882 salary, $150 bonus & indir., $100 dir. fees; **Warren L. Pierson**, chm. of board & dir., $66,929 salary, $10,958 bonus & indir., $100 dir. fees; **J. A. Collings**, exec. vp & dir., $47,583 salary, $8,964 bonus & indir., $100 dir. fees; **E. O. Cocke**, sr. vp-sales & dir., $36,038 salary, $5,855 bonus & indir., $100 dir. fees; **A. V. Leslie**, sr. vp-finance, treas. & dir., $36,038 salary, $3,415 bonus & indir., $100 dir. fees; **George H. Clay**, vp-administrative services & dir., (2-28-57*), $23,791 salary, $2,156 bonus & indir., $100 dir. fees; **J. W. Thomas**, vp, $18,438 salary, $1,474 bonus & indir.; **G. L. Gilmore**, vp-public relations, $20,593 salary, $2,080 bonus & indir.; **T. K. Taylor**, vp, $23,796 salary, $1,700 bonus & indir.; **R. E. Montgomery**, vp-reg. sales, $20,163 salary, $2,407 bonus & indir.; **P. Marechal**, vp-reg. sales, $17,978 solory, $1,673 bonus & indir; **J. D. Harrigan**, vp-reg. sales, (5-14-57*), $15,558 salary, $1,661 bonus & indir., **W. Letzkus**, vp.-reg sales; $20,040 salary, $10,743 bonus & indir.; **A. L. Stewart**, vp-reg. sales, $19,628 salary, $160 bonus & indir.; **R. Mazzarini**, vp-reg. sales, $16,920 salary, $7,888 bonus & indir.; **F. G. Betts**, vp-purchasing, $21,769 salary, $4,162 bonus & indir.; **J. H. Clemson**, vp, (8-19-57*), $24,732 salary, $5,017 bonus & indir.; **C. E. McCollum**, vp-national accounts, (6-14-57*), $19,893 salary, $4,860 bonus & indir.; **C. S. Fullerton**, vp & gen. sales mgr., $25,243 salary, $3,041 bonus & indir.; **R. M. Dunn**, vp-overhaul, maint. & stores, $21,281 salary, $5,009 bonus & indir.; **F. E. Busch**, vp-opns., $31,414 salary, $6,797 bonus & indir.; **P. G. Desautels**, vp-passenger service, (10-15-57*), $19,079 salary, $6,232 bonus & indir.; **R. W. Rummel**, vp-eng., $19,687 salary, $4,510 bonus & indir.; **J. L. Weller**, vp-planning & coordination, $20,121 salary, $4,913 bonus & indir.; **R. Duckworth**, corporate secy., (2-28-57*), $17,287 salary, $1,528 bonus & indir.

NOTES: *Date of assuming position.

DIRECTORS: **Fred W. Ayers**, $200 salary, $140 bonus & indir.; **Palmer Bradley**, $800 salary, $140 bonus & indir.; **Noah Dietrich**, $300 salary, $140 bonus & indir.; **Arthur Eisenhower**, $300 salary, $140 bonus & indir.; **Oscar F. Holcombe**, $500 salary, $140 bonus & indir.; **Sidney Maestre**, $700 salary, $140 bonus & indir.; **M. E. Montrose**, $600 salary, $140 bonus & indir.; **C. H. Price**, $700 salary, $140 bonus & indir.; **H. E. Rogers**, $900 salary, $140 bonus & indir.; **Ben-Fleming Sessel**, $800 salary, $140 bonus & indir.; **A. D. Simpson**, $1,000 salary, $140 bonus & indir.; **Thomas A. Slack**, $500 salary, $140 bonus & indir.; **Loyd Wright**, $600 salary, $140 bonus & indir.

PERSONS OTHER THAN directors, officers and employees who were paid more than $10,000 for personal serrvices were: **Abbey Limousine**, New York City, limousine service, $12,031; **Carey Cadillac, Inc.**, N.Y.C., limousine service, $34,959; **Chadbourne, Parke, Whiteside & Wolff**, N.Y.C., legal services & resident attorney's fees, $40,396; **Wallace Clark & Co.**, N.Y.C., management consultants, $70,333; **Coverdale & Colpitts**, N.Y.C., consulting engineers, $121,495; **Cresap, McCormick & Paget**, N.Y.C., management consultants, $44,689; **Foote, Cone & Belding**, N.Y.C., advertising service charges and commissions, $56,504; **Haskins & Sells**, Kansas City, audit fees and professional services, $59,010; **Heart of America United Campaign**, Kansas City, annual contribution, $11,250; **Interstate Co.**, San Francisco, operation of bar in San Francisco, $14,099; **Institute of Visual Training**, N.Y.C., service charge for booking inspecting & shipping film, $35,980; **Irving Trust Co.**, N.Y.C., services in connection with loan agreement & sinking fund bonds, $19,988; **New York Trust Co.**, N.Y.C., transfer agent for company stock, $46,389; **J. B. Redwine**, Kansas City, flight training, $22,299; **Universal Agency, Inc.**, advertising agency comm., $18,540; **Winthrop, Stimson, Putman & Roberts**, N.Y.C., legal services, $10,000; **Mario Zamparelli**, Hollywood, Calif., painting murals in 1649As, $26,000.

UNITED AIR LINES

OFFICERS: **W. A. Patterson**, pres., $100,000 salary, $9,265 expenses; **R. E. Johnson**, vp & asst. to pres., $50,000 salary, $6,784 expenses; **J. A. Herlihy**, vp-eng. & maint., $50,000 salary, $2,630 expenses; **D. F. Magarrel**, vp-trans. serv., $50,000 salary, $4,637 expenses; **D. R. Petty**, vp-fit. opns., $46,000 salary, $6,156 expenses; **Curtis Barkes**, vp-finance & property, $45,000 salary, $3,889 expenses; **R. F. Ahrens**, vp-personnel, $37,000 salary, $4,726 expenses; **Hal E. Nourse**, vp-econ. controls, $31,000 salary, $1,170 expenses; **R. W. Ireland**, vp-trf. admn. (retired 8-1-57), $15,750 salary, $2,726 expenses; **C. F. McErlean**, vp & asst. to pres., $30,000 salary, $1,886 expenses; **S. P. Martin**, secy., asst. to pres., $19,000 salary, $1,021 expenses; **Rexford E. Bruno**, asst. to pres., comptroller, $21,400 salary, $671 expenses; **A. M. deVoursney**, treas., secy., $22,400 salary, $1,517 expenses.

DIRECTORS: **Martin C. Ansorge**, $1,700 salary, $1,050 expenses; **Paul A. Bissinger**, $1,600 salary, $900 expenses; **H. Templeton Brown**, $1,800 salary, $1,200 expenses; **Gardner Cowles**, $1,500 salary, $750 expenses; **Justin W. Dart**, $1,700 salary, $1,050 expenses; **Thomas F. Gleed**, $1,800 salary, $1,200 expenses; **Paul G. Hoffman**, $1,700 salary, $1,050 expenses; **Eric A. Johnston**, $1,700 salary, $1,050 expenses; **John J. Mitchell**, $1,600 salary, $900 expenses; **Aksel Nielsen**, $1,700 salary, $1,050 expenses; **Vernon Stouffer**, $1,600 salary, $900 expenses.

PERSONS OTHER THAN directors, officers and employes who were paid more than $10,000 for personal services were: **Arthur Anderson & Co.**, Chicago, audit services, $31,579; **Brobeck, Phleger & Harrison**, San Francisco, legal services, $15,676; **Raymond Loewy Associates, Inc.**, Chicago, designing service, $242,498; **Mayer, Friellich, Spiess, Tierney, Brown & Platt**, Chicago, legal services, $273,231; **Olson Mecklenburger, Von Holst, Pendleton & Newman**, Chicago, legal services, $21,958; **Pereira and Luckman**, Los Angeles, architect services, $12,334; **Rapp and Rapp**, Chicago, architect service, $15,460; **James Francis Reilly**, Washington, legal services, $33,336; **Merryle Stanley Rukeyser**, New Rochelle, economic consultant, $12,000; **Skidmore, Owningg and Merrill**, San Francisco, architect & engineering services, $162,279; **John R. Steelman**, Wash., economic consultant, $12,550; **Young Richardson & Carleton**, Seattle, architect & engineering services, $28,837; **Hardin, Hess and Eder**, New York City, legal services, $10,340; **Trippet, Yoakum, Stearns & Ballantyne**, Los Angeles, legal services, $12,493; **Clyde C. Kennedy**, San Francisco, engineering service, $10,785; **G. Batcheider Ollinger**, N.Y.C., engineering service, $26,042; **B. M. Doolin**, Sacramento, airport consulting service, $11,180.

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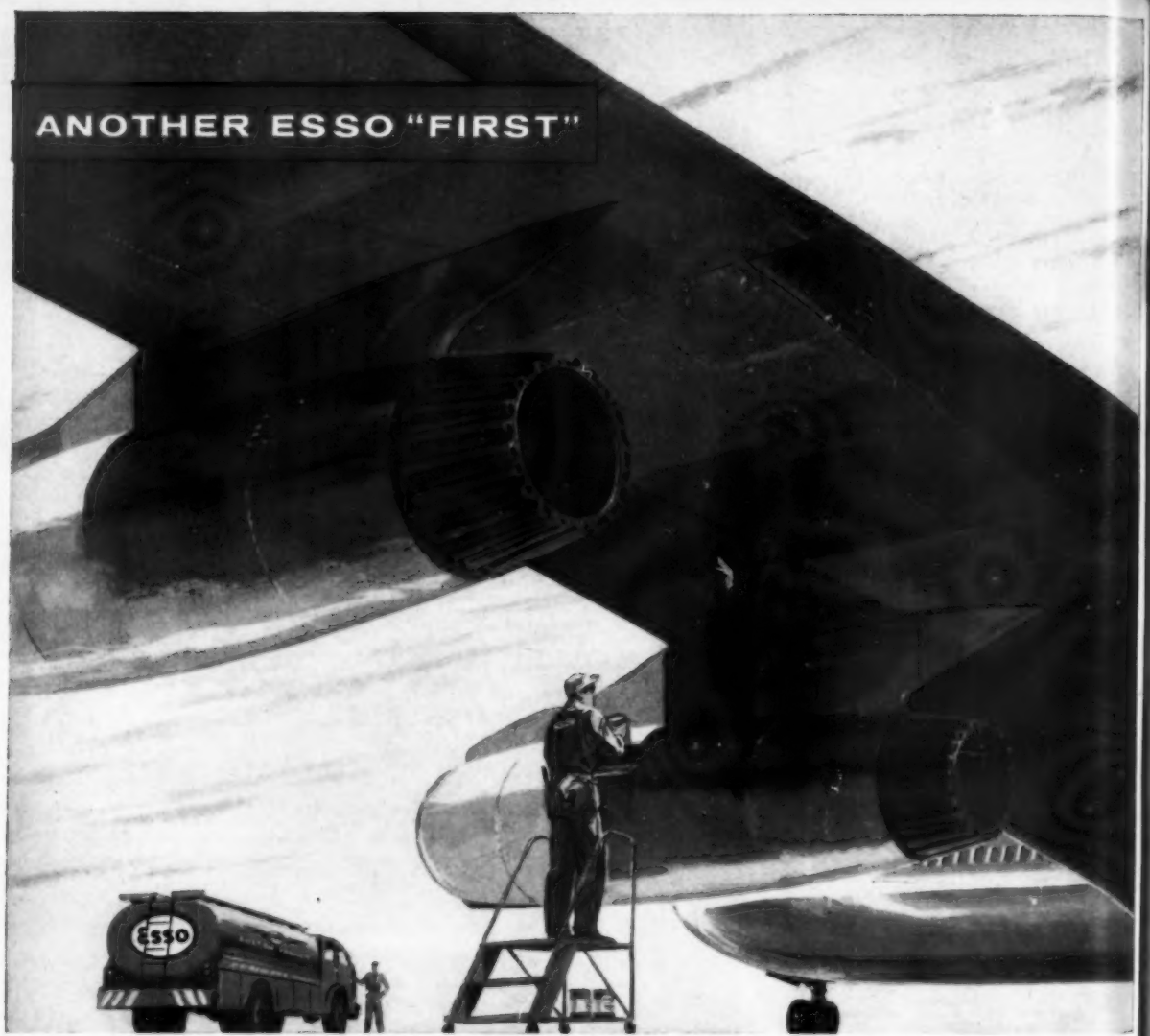

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TRANSPORT TRENDS

Round-the-world flight next month with Boeing 707, as part of certification tests, is a definite possibility. Airplane is Pan American's, and Boeing must get the airline's permission. CAA reportedly approves of the flight, believing that much valuable data will be gathered under many different operational conditions.

Northeast Airlines' purchase of five Bristol turboprop Britannias hinges on financing. Prevailing opinion at presstime was that NEA would be unable to make it. This will be a blow to Bristol, which had counted on selling at least one U.S. domestic carrier.

The Frye Safari project is now "on the shelf." Latest negotiation with Chance Vought to build prototypes has failed. Jack Frye has firm conviction that the short-haul high-lift transport will be built some day. But for the time being he's turning to other endeavors.

Low salary scale for air traffic controllers is major CAA problem. New controller starts at just over $4,000 a year, can only work his way up to less than $8,000. To get above $8,000—but not over $10,000—he must be chief controller at a center such as New York—with major responsibility for countless planes and lives. Chief's salary is way under lowest average pay of trunkline pilots and copilots. Result is that CAA has trouble keeping good men. The agency wants to boost salaries, is working closely with Civil Service Commission to alleviate the situation.

Sad state of airline profits: U.S. carriers showed 50% drop in net income after taxes between 1956 and 1957. Analysis by First National City Bank of New York shows this was the biggest decrease of any group in 3,521 leading corporations surveyed. These corporations' margin on sales was 6.1% in 1957 against airlines' 2.2% —down from 4.1% in 1956. (See page 48.)

Timing may prove critical factor in airline affairs on Capitol Hill. Sagging national economy could produce a two-way indirect tax benefit for carriers—repeal of transportation levies and reprieve from proposed new fuel taxes.

Fate of domestic airlines' no-show control plan will be decided May 13 at Air Traffic Conference meeting in Washington. American and Mohawk have shown no signs of backing down from their position that plan costs too much to administer, is inconvenient for passengers. AA is expected to propose a less stringent procedure. Airlines that favor status quo say industry will have major re-education job if plan is junked. Passengers accepted penalty system because carriers sold them on industry's need, will be puzzled by another change, proponents claim.

Rockefeller group's report on U.S. economic outlook gave only casual three-page treatment to transportation, disposed of air travel in three sentences. Railroad industry thinking is reflected in a number of the transportation references in the report, which urges establishment of a federal Department of Transportation.

Breach between CAB and CAA as to thinking on jet certification may be widening. Board is proposing rules to speed introduction of jets, bolster U.S. position in the face of threat to national prestige by foreign competition. Among other things, it has proposed provisional certification of jets so airlines can use them quickly for crew training and in simulated air carrier operations. But some CAA officials feel carriers may be moving too fast. They consider jet introduction a bigger step than 20-year transition from DC-3 to DC-7, one in which a considerable degree of caution is required.

TRANSPORT At Deadline

Higher fares boost first quarter revenues but picture is still glum

Despite continued revenue increases, the U.S. airlines' first quarter financial picture was far from bright.

The 4% plus $1 fare increase granted by CAB had added to revenues, but the airlines said the results were proving their original contention—the boost wasn't large enough.

United Air Lines' overall first quarter loss was $348,593 against a $347,240 profit in the same 1957 period. Operating loss this year was $599,964 against $885,609 loss last year. Gain on sale of surplus planes was $215,371 against $1,231,849. Record revenues were up 10%, expenses 8%. UAL derived about $1,750,000 additional revenue from the fare increase.

American Airlines reported $1,635,000 net, including profit on equipment sales, compared with $1,657,000 last year. AA, as did other carriers, revised its depreciation policy to conform to a CAB regulation, and this added $1.6 million to earnings.

Eastern Air Lines said that while gross operating revenues rose, earnings dipped 33% under the 1957 first quarter. Rising expenses, competition, and bad weather in Florida contributed to the decrease.

Trans World Airlines' loss for the first two months of 1958 was $7,891,000 against $5,854,000 in 1957. Results included capital charges of $4,870,000 compared with $3,583,000. Operating loss was $3,021,000 against $2,300,800. March results are not complete, but are expected to show a $2-million loss compared with $1,438,000 loss in March, 1957.

Capital Airlines' first quarter net loss, after giving effect to capital gains and special items, was $1,468,719 vs. $1,870,171 in 1957. Operating loss was $670,405 vs. $992,227. Loss for the 12 months ended Mar. 31 was $2,468,903 vs. $2,084,039.

Braniff Airways reported first quarter net earnings of $426,000. Profit from operations was up 5.25% and accounted for $242,700, while $183,000 resulted from sale or lease of equipment. Operating revenues were up 13.8%. The fare increase "had a favorable effect on revenues without adverse effect on traffic," but is not sufficient.

The following reports for calendar year 1957 were also released:

Pan American World Airways: $8.2 million net earnings, down from 1956's $14.2 million. PAA was operating for the first time without subsidy. Operating revenues rose 8.2%, expenses were up 11.7%.

Pan American-Grace Airways: $1,469,000 profit against $1,420,000 in 1956. Profit was derived from lease and sale of surplus planes and from other capital gains, said W. R. Grace & Co., joint owner of Panagra with Pan American.

New York Airways: $117,227 net loss against 1956 loss of $32,400. Inadequacy of temporary subsidy revenues caused the lack of earnings, said president R. L. Cummings, Jr.

Los Angeles Airways: $92,005 net earnings against $74,448 net in 1956.

Piedmont Aviation Inc.: $156,794 net compared with $50,281 in 1956.

——April 30 Situation Report——

General passenger fare investigation

This day

TWA witnesses are testifying. CAB's Bureau counsel has been relentless in cross-examination, ranging far beyond the evidence at hand. (A few days earlier, Examiner Wiser—whose seemingly inexhaustible patience has begun to wear thin—struck down an attempt by Bureau counsel to introduce a newspaper clip in evidence with the comment: "I think that is a frivolous offer . . . you are wasting our time.")

Ahead

. . . is more testimony from TWA, then United and Western. General Services Administration witnesses are scheduled to appear briefly following the carriers. After this there will be a ten-day recess and, finally, direct presentation by CAB air operations experts. If all goes well, the hearing phase should end early in July.

Behind

. . . are two weeks in which witnesses from National, Eastern, Northeast, Northwest and the Air Transport Assn. were heard. Today is the 103rd day of hearings; more than 10,000 pages of transcript are now in the docket, plus a half-thousand exhibits of varying size.

Board again to probe airline needs on transcontinental route

For the second time in a decade the explosive issue of southern transcontinental air service will soon demand the full attention of the Civil Aeronautics Board.

A prehearing conference, scheduled for this week, will lay the ground rules of an investigation which CAB says will determine whether there is a need: (1) for single-carrier service between Houston and San Diego, Los Angeles, and San Francisco/Oakland via San Antonio and El Paso, and (2) for single-carrier transcontinental service between the Florida points of Miami, Orlando, Jacksonville and Tampa, on the one hand, and San Diego, Los Angeles and San Francisco/Oakland, on the other, via New Orleans, Houston, San Antonio and El Paso.

Here's what the airlines want:

American Airlines has asked the Board to investigate the issue of service via Dallas/Ft. Worth. At the some time, the carrier filed for a new segment between San Francisco/Oakland and Miami via intermediates. The airline felt that its applications for Dallas/Ft. Worth-Houston, New Orleans, Atlanta and Florida segments should all be consolidated.

Braniff Airways has filed for routes between Miami and San Francisco via intermediates and between Dallas and Ft. Worth and Miami via New Orleans and Tampa.

Continental Air Lines has requested a route between Houston and San Francisco via intermediates.

Delta Air Lines has applications on file to (1) extend beyond Houston to San Francisco/Oakland via intermediates and (2) add a new segment to said route between Miami and San Francisco via intermediates.

Eastern Air Lines, in a late filing, has asked that the six additional cities of St. Petersburg/Clearwater, Fla., Albuquerque, N.M., Tucson and Phoenix, Ariz., and Las Vegas, Nev. be included on any "main line" southern transcontinental service. An original application by EAL for service to San Francisco also asked the Board to make Jackson, Miss., and Shreveport, La., intermediate points between Birmingham, Ala., and the main transcontinental route.

National Air Lines moved to consolidate applications for: (1) service between New Orleans and/or Houston and San Francisco/Oakland via intermediates; (2) inclusion of Orlando and St. Petersburg/Clearwater, Fla. as intermediate points on NAL's route between Tampa and Miami; and (3) a new route extending from Miami to Seattle via intermediates.

The local service carrier Pacific Air Lines (formerly Southwest Airways) moved to intervene and consolidate

Transports in the news . . .

various applications in San Francisco and Los Angeles markets.

Trans World Airlines has filed for a route extending from San Francisco and Los Angeles to Miami and Tampa via intermediates.

United Air Lines has asked the Board to consider a routing from San Francisco to Miami via intermediates.

Western Air Lines has requested authorization between San Francisco/-Oakland and Houston via intermediates.

Lewis Maytag, 31, buys Frontier Airlines

Controlling interest in Frontier Airlines has been purchased by Lewis Maytag, Jr. from a group headed by Emil Levin, of Chicago.

Maytag, 31-year-old son of the washing machine manufacturer, heads Maytag Aircraft Corp., Colorado Springs, makers of aircraft refueling equipment. He bought 290,000 shares, or about 65%, of Frontier's stock and has promised "active participation in the affairs of the airline." C. A. Myhre remains as president.

Levin, a Chicago businessman who is secretary and a director of FAL, acted as "liaison man" to gather together the shares sold to Maytag. Included were the shares held by present FAL board chairman Ben Regan.

All-cargo carriers may get permanent certification

House Transportation Subcommittee has completed hearings on and has under consideration Senate-passed legislation that would permanently certify all-cargo air carriers.

Committee observers expect eventual approval of the measure. But several problems must first be thrashed out.

One of these was posed by Slick Airways, which is in a temporary state of suspended activity. Delos W. Rentzel, chairman of the board, said provisions freezing carriers to service points at the enactment date would complicate Slick's activities. Alternative would be to allow an exemption for the carrier so it could apply for permanency when the economic picture brightens.

Witnesses offered two other amendments for committee consideration. They would: (1) include two international carriers, Seaboard & Western and Aerovias Sud Americana, and (2) lift the restriction against subsidy for this class of carrier.

The latter could run into trouble. The bill, as it passed the Senate, conditioned permanent certification on the non-subsidy status of the cargo carriers.

Rentzel and other industry witnesses said the bill would be a greater aid to the carriers stripped of its subsidy prohibition. Slick, Riddle and AAXICO have all applied to CAB for subsidy.

FIRST PHOTO of Colonial Aircraft Corp's C-2 Skimmer four-place amphibian, rolled out by the Sanford, Me. firm in December. To date three have been built. C-2 measures 23' 6" long, has 34-ft. wingspan, is 8' 10" high. Powerplant is Lycoming 0-363-A1A rated at 180 hp. Aircraft has maximum speed of 136 mph, cruises at 125 mph and has 52-mph stall speed. Maximum gross weight is 2,350 lbs., weight empty 1,470 lbs. and payload (including fuel) 880 lbs. Range of C-2 is 500 miles.

DE HAVILLAND (Canada) DHC-4 Caribou in civilian markings. Civil version is proposed for 27 passengers, two-man crew. Caribou gross weight is 24,000 lbs., empty weight 14,500 and payload 6,250 lbs. Over a 600-mile range at 180-mph cruise. Powerplants are Pratt & Whitney R2000-D5S. U.S. Army has ordered five DHC-4s for evaluation and first flight is expected in late June or early July.

JOINT EFFORT of L. B. Smith Aircraft Corp., Miami, and Aircraft Engineering Foundation, Ft. Worth, led recently to certification of this Super 46C by CAA. Kits for conversion to new model have been ordered by Varig (Brazil) and Transair Sweden. TAS has bought two aircraft, will modify three other CW-20TS. Super 46C is approved for maximum gross of 50,100 lbs., cruises at 232 mph at 10,000 ft.

Minetti sees 'grim days' because of fare increases

Civil Aeronautics Board Member G. Joseph Minetti has predicted the possibility of grim days ahead for the airline industry in his dissent on the recent interim passenger fare increase.

Minetti cautioned that the adverse effect which this and possible future interim fare increases will have on today's passengers, as well as the vast majority of Americans who have never flown, may be disastrous. The Board member hints that his colleagues in the majority have resolved all doubts in favor of the carriers and against the individual passenger.

Minetti singled out the capacity problem as the issue which most strongly militates against a fare increase. He explained that the same excess capacity, considered by the Board in the 6% Case, is controllable to a large degree, and has continued unabated in the latter half of 1957.

This condition, Minetti said, has been almost solely responsible for the decline in earnings since the close of the record in the 6% Case.

Minetti concluded that the tendency to price all categories of air transportation out of reach of a significant segment of the general public may signal a reversal of the recent diversion from surface to air travel.

Continental Viscount 812 certified in England

Continental Air Lines' first Viscount 812 was certificated by the CAA in England, with increases in allowable takeoff and landing weights.

Takeoff gross was upped from 67,500 lbs. to 69,000 lbs., while landing weight was increased from 60,000 lbs. to 62,000 lbs.

Delivery of the first two Viscounts is expected at CAL's Denver headquarters during the week of May 11, with the third due the following week. These will be put into service May 28, three roundtrips Chicago-Denver-Los Angeles and one trip Chicago-Kansas City-Denver-Los Angeles. This marks the first U.S. service with the Viscount 800 series.

NWA board approves DC-8, Electra purchase

Northwest Airlines at presstime reportedly received board of director approval to order five Douglas DC-8s and 10 Lockheed Electras. Northwest was the sole remaining U.S. carrier without a turbine order on its books.

NWA's negotiations are understood to involve unprecedented "trade-in" agreements on the part of both Lockheed and Douglas.

The latter reportedly agreed to accept several of NWA's DC-7Bs as part payment for DC-8s. Lockheed was reported to accept nine Northwest Boeing 377s in partial payment for Electras.

BRIEFS

Transport

Noah Dietrich, former official of Hughes Tool Co., was not re-elected to the TWA board of directors, after serving 11 years. Dietrich, long-time business advisor to Howard Hughes, split with Hughes last year but had remained on the TWA board.

Discount fares granted by the airlines to the military should be canceled, CAB Examiner Edward T. Stodola recommended. Such fares are not justified "on grounds of competition, cost considerations or the overall impact of such fares," he said.

Pacific Airmotive Corp., which has been servicing military Pratt & Whitney J57s at Burbank, received its first two commercial JT3 jet engines from Seattle to put through inspection and test. Engines were taken off the production Boeing 707.

Lockheed Aircraft Service signed a contract with Linea Aeropostal Venezolana for complete maintenance of LAV's fleet of seven Super Constellations. Work will be performed at LAS' New York base.

First Boeing 707 for American Airlines is now scheduled to roll out on June 24 and to make its first flight on July 29.

Pan American World Airways filed CAB application for one-way New York-Puerto Rico fare of $45, effective May 22. PAA's present "thrift" fare is $52.50, first-class $105 and tourist $67.50. The $45 would equal Trans Caribbean Airways' fare.

Aerotherm Corp., Bantam, Conn., shipped the first complete set of production model passenger seats to Seattle for installation in Pan American World Airways' Boeing 707.

Airways Modernization Board placed a $57,543 contract with International Business Machines Corp. that may lead to electronic analysis and early correction of some types of flight delay causes. Award calls for trials of air traffic simulation using a SAGE-type computer to determine whether computer can put together and relate all the factors that are part of real ATC situations in en route traffic.

New version of Douglas C-133 turboprop transport, the C-133B, has been revealed. No details were released, other than that it is a "new and improved version" and that the recent USAF order for 15 additional C-133s was for the new model.

The Babb Co., New York, has been appointed by Boeing Airplane Co. as agent to handle sales of 14 Stratocruisers being returned to Boeing by British Overseas Airways Corp. First plane will be returned this year, with the others available in 1959, leading to delivery to BOAC of Boeing 707 jets.

Scandinavian Airlines System reports that Sud Aviation's Caravelle twin-jet transport demonstrated brake efficiencies three to four times better than piston transports. SAS credits Dunlop anti-skid installation, says Caravelle was braked to stop in less than 2,000 ft. on snow-covered runway during recent "Operation Snow-White."

Obituary

Raymond T. Lewis, manager of commercial engine sales of General Electric's Aircraft Gas Turbine Div., died in Cincinnati. He formerly was manager of service engineering for American Airlines.

Correction:

Table of scheduled U.S. airline revenues and expenses (p. 73, April 21 issue) reported Southern Airways 1957 operating loss of $1,938,435! Correct figure is $138,349. SOU's operating income was $4,427,226 and operating expenses $4,565,575. Total assets (p. 68) should have been $1,615,468.

Reds hint they'd welcome air talks with U.S.

In an enigmatic move which apparently caught our government aviation experts by surprise, the Soviet embassy in Washington has issued a press release outlining present operations and future plans of Aeroflot.

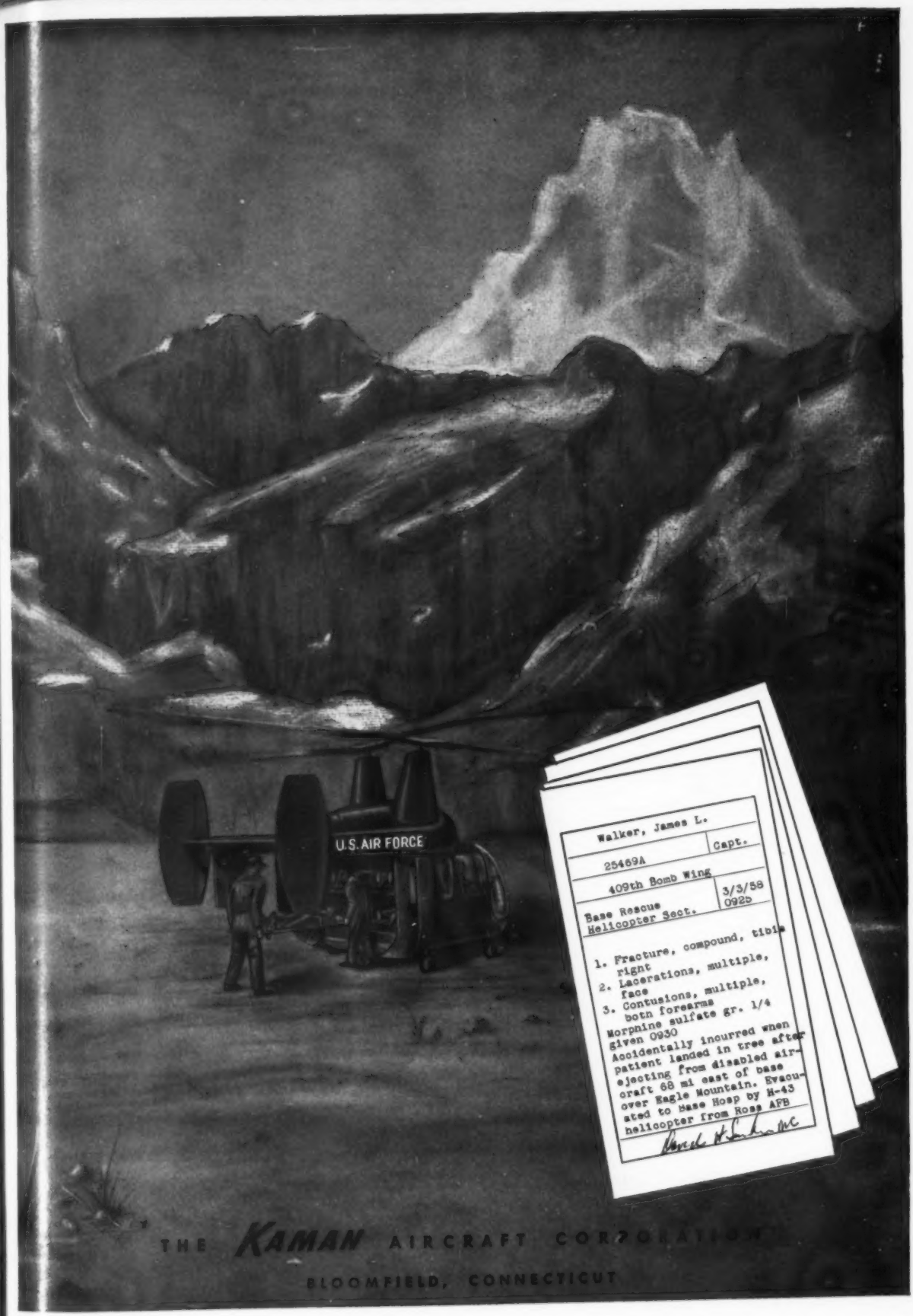
So far as is known, this is the first time the Soviets have issued a public statement in the U.S. on the subject. At this writing, the document is being carefully studied here for its implications by government and private groups.

Key paragraph states: *"The Soviet people, who are keenly interested in stronger economic and cultural contacts with the Americas, are sure that talks will soon begin, on the basis of the mutual advantage and good will, concerning direct air communications between the USSR and the USA."*

This is a real puzzler, since, so far as can be learned, there have been no diplomatic feelers issued by the the Soviets on this subject. Explanation may lie in the next paragraph, which says that "currently, our civil aviation has reached a new, important state in its development" marked by the appearance of the new Soviet jet and turbine-powered airliners.

The announcement also indicates that Aeroflot will make a determined effort to treat travelers from the West in the fashion they have learned to like in the free world: "Measures to improve service for foreign tourists going to the Soviet Union have been drawn up . . . at all air lines their seats will be reserved in advance."

"Undoubtedly 1958 will mark a milestone in the development and consolidation of our country's international air communication," the official statement says. "The number of countries with whom the Soviet Union is linked by air will increase, and this will be a great contribution to stronger international friendship and understanding."


U.S. AIR FORCE
Walker, James L.
Capt.
25469A
409th Bomb Wing
3/3/58
0925
Base Rescue Helicopter Sect.
1. Fracture, compound, tibia right
2. Lacerations, multiple, face
3. Contusions, multiple, both forearms
Morphine sulfate gr. 1/4 given 0930
Accidentally incurred when patient landed in tree after ejecting from disabled aircraft 68 mi east of base over Eagle Mountain. Evacuated to Base Hosp by H-43 helicopter from Ross AFB
THE KAMAN AIRCRAFT CORPORATION
BLOOMFIELD, CONNECTICUT

Jet Flies
The Sacramento Union
Voodoo Jet Sets 1207 MPH Rec
McDonnell's Voodoo Jet Sets New Mark, 1207 Miles an Hour
U.S. Recaptures Speed Record From English
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H. H. "HERM" COLE, at 39, typifies one of our many young "old timers", having joined the firm in 1942, just three years after it was founded. After varied experience in airplane design, Herm was assigned to the Preliminary Design Group of the XF-88 Voodoo in 1946 upon his return from Navy service. In 1952, he was appointed Assistant Project Engineer of equipment and structures on the F-101A, later being promoted to Project Engineer. Presently, he is Project Engineer for all three versions of the Voodoo.

The headlines of our nation's newspapers proclaimed the speed of the F-101 Voodoo after "Operation Fire Wall", conducted in late 1957. Herm's entire project organization deserves special accolades since it was the F-101A model of the Voodoo which established the new world's speed record of 1207 m.p.h. for operational fighters.

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WEST COAST TALK

by Fred S. Hunter

Why Flying Tiger boys took plunge on Kentucky Derby; Fairchild's Dick Boutelle no long-distance talker

WE DO NOT KNOW, at this writing, which noble steed got to the wire first in the Kentucky Derby, but if it wasn't Silky Sullivan everybody at The Flying Tiger Line is broke. Last time the Tiger Line flew a horse from California to Kentucky for the derby—this was Determined in 1954—the animal responded to the smooth trip by winning the race in a breeze. When Silky Sullivan was shipped out on a Tiger plane for this year's race, this was a hunch the boys couldn't resist.

If you ever want somebody to make a real short speech, we can recommend Richard S. Boutelle, president of Fairchild Engine & Airplane Co. Fairchild was host at a luncheon for the Assn. of Local and Territorial Airlines at the recent regional meeting in Los Angeles and Boutelle flew out from Hagerstown to make the principal talk in behalf of the company. It took him just two minutes to report that the F-27 had rolled out, would fly as soon as weather permitted and would be a good airplane. The way we figured it, Boutelle's trip for the speech counted out at about 100 miles per word.

Boeing's Carl Cleveland says the fact that Lockheed sent the Electra to the Seattle area for icing tests is a sort of dirty Los Angeles Chamber of Commerce trick. But if the Electra fails to find the right type of ice (CAA approved) at Seattle, we can hear Lockheed's Dick Bean muttering the same kind of words about the Seattle Chamber of Commerce.

Boeing, we might tell you, may have had a great stroke of luck on 707 icing tests. Not long after flight testing of the production 707 got under way, Boeing heard (from the Seattle C of C, no doubt) there was ice over the Pacific. It hustled the 707 out, and, sure enough, found just the right kind of weather to demonstrate the new Jetliner's performance under icing conditions. Only trouble is that this happened before the official CAA flight test program had started. There was, however, a CAA inspector aboard as a guest. Now if the CAA will accept the data from this flight, Boeing has it made. Remembering the fortune it spent hunting for ice 10 years ago when it was certifying the Stratocruiser and actually didn't find it until the first airplanes already had been delivered to the airlines, Boeing hopes luck will be with it.

Politics! It used to be Sen. Thomas Kuchel who made public the announcement of military orders awarded to Southern California aircraft companies. This is Kuchel's territory. But now the announcements come from Sen. William F. Knowland of Oakland. It is Knowland who is running for office at this year's election.

Slick Airways moved its flight operations from Dallas back to Burbank, but may not stay long, switching to San Francisco, if Lockheed Air Terminal will release it from the lease on its office building, which runs to 1961. It already has transferred all its pilots to San Francisco, where most of the military flights out this way originate or terminate.

Pretty uncertain is the business of selling transport airplanes. The Douglas sales department felt sure that South African Airways would order DC-8s powered by Rolls Royce Conway engines. Instead, it bought Boeing 707s powered by P&W J75s.

When altitude record holder Lt. Comdr. George Watkins was telling a press conference how he couldn't start his "zoom" pullup until he had only 400 pounds of fuel remaining, one Navy pilot was heard to mutter: "How could he tell? We've got that much of a calibration error!"

CAA 4th Region safety division office says a large number of old four-place and two-place aircraft are appearing in the air and are being rebuilt in various garages around. The appearance of airplanes such as Fairchild 24s, Cessna Airmasters, Piper J-3s, etc., indicate the manufacturers have out-priced the average wage earner, but have not dimmed his desire to fly.

North American's twinjet UTX is scheduled to roll out, without engines, May 15. If General Electric delivers the J85 engines in July, as NAA expects now, the airplane will fly in August. Once the airplane is flying, all NAA has to worry about is whether the Air Force has enough money to buy both a UTX and a UCX.

United Air Lines is considering a nonstop schedule between New York and Honolulu after it gets DC-8s. Time would be 10 or 10½ hours.

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PEOPLE

Transport

Labib Majdalani and **Ralph Assily** receive new titles with Middle East Airlines. Majdalani becomes regional sales mgr.-North America and Assily becomes sales mgr.-West Coast, U.S.A.

Arthur A. Brennan named dir. industrial rel. and asst. to vp-personnel for Northeast Airlines.

Edward T. Thompson, Jr., appointed financial asst. to pres., Riddle Airlines. Also with Riddle, **Charles K. Miller** is placed in charge of material.

Ken D. Dewar retires from Canadian Pacific Airlines after 30 years and 2,500,000 miles of flying. With CPA since 1942, Dewar was a Royal Flying Corps pilot in 1918.

Norman P. Blake elected vp and **Howard M. Blackwell** elected asst. vp-services of supply with Pan American World Airways. Blake is former Atlantic Div. Mgr., and has been with Pan American since 1939.

BLAKE

SOUTH

Charles S. South becomes vp of Braniff International Airways. **Thomas P. Robertson** elected asst. vp-research and statistics. South has been Braniff's Brazilian mgr. since 1949.

Frank O. Muni appointed acting pub. rel. mgr. for KLM Royal Dutch Airlines.

Manufacturing

Earle K. Brownridge named exec. vp and gen. mgr. for Orenda Engines Ltd. He has been with A. V. Roe Canada since 1945.

J. L. Plant appointed pres. and gen. mgr. of Avro Aircraft Ltd., Malton, Canada. Formerly exec. vp and gen. mgr., Plant is a retired RCAF air vice marshal.

Dallas A. Murphy becomes spare parts procurement sales engr., commercial jet engine sales, Production Engine Dept., General Electric Co.

Allison E. Gossett named asst. dir. aviation sales for AC Spark Plug Div., General Motors. Replacing Gossett as western dist. sales mgr. will be **S. S. Coates.**

Robert K. Gornall and **John A. Riopelle** promoted at Eclipse Machine Div., Bendix Aviation Corp. Gornall is sales mgr.-carburetors and Riopelle becomes sales mgr.-fuel nozzles.

Donald P. Frankel joins Chicago Aerial Industries, Inc. as dir. customer relations. Frankel brings more than 20 years of aviation engineering and sales experience to the newly created CAI dept.

Delvin E. Kendall promoted to chief-systems research and development and **Robert C. Mack** to chief-systems development at Kaman Aircraft Corp.

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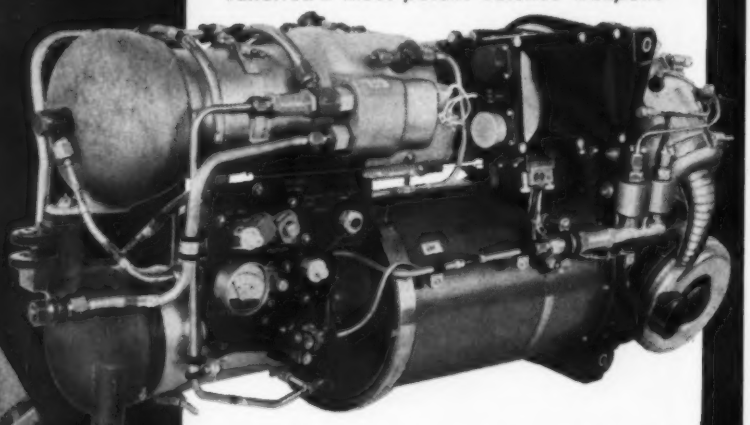

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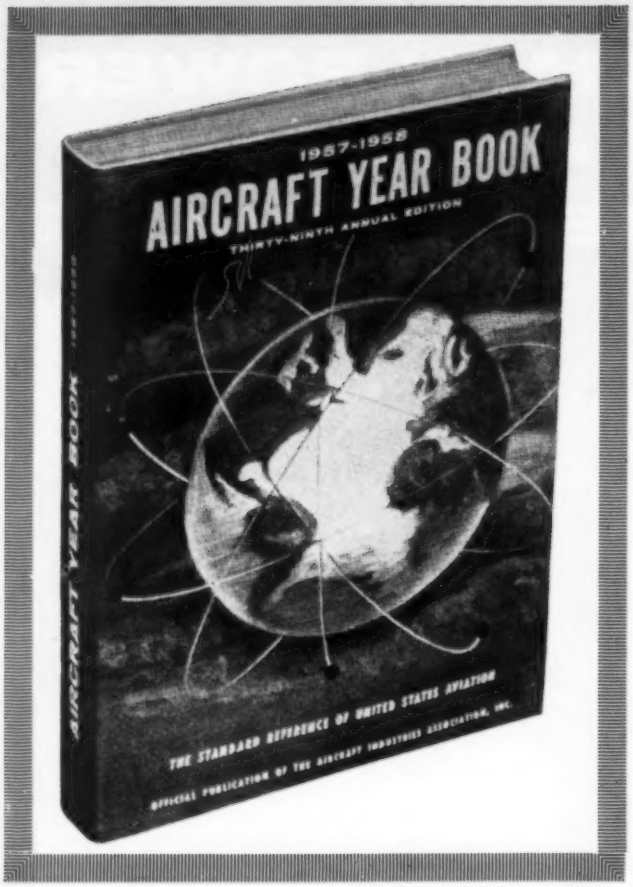
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EN ROUTE

by Wayne W. Parrish

Ed Murrow (not in the flesh) visits the Parrishes

(The New Zealand series is interrupted while I report on a TV experience.)

FOR A LONG TIME I've tuned in the Edward R. Murrow Person-to-Person program Friday nights on CBS-TV. Like you, I like to snoop in other people's houses.

It never occurred to me that Ed Murrow would ever pay a call via TV at my house or that I would ever show the place off to upwards of 30 million viewers. Not until a few months ago, that is.

One day I got a feeler as to whether my wife and I would be interested in being on Person-to-Person. Naturally I said yes, but I was so incredulous that any such thing would really happen that I didn't even bother to mention it to my wife. In fact I dismissed it from my mind.

Then whammy, sometime early in March I got a call asking if we would accept the date of April 18, with Maurice Chevalier, famous French entertainer, as a co-feature. That really called for a conference at home. The date was inconvenient, but I was gently informed that one doesn't dicker around with one of the nation's most popular TV shows, so I sent back word: "Okay." But it was some weeks later before I actually believed that the program was firmed up.

As most of you know, I guess, my better half and I opened up our house to Murrow and TV crew on the night of April 18 and all I can say is that it was one of the most amazing experiences in my half-century of life. Quite extraordinary.

Wife gets credit

As to how it all came about, I should start out by noting that having a career wife in the public limelight made the whole thing possible. My Miss Knight is director of the Passport Office of the State Department and has been getting quite a bit of publicity of late. Also, this is the peak season for passport applications. The combination of my traveling and publishing seemed to make for a good show in the minds of the Murrow people. Also, we have a rather unusual house for Washington. It's modern and was designed especially for entertaining and was something a little out of the ordinary to show off.

Next thing that happened was a telegram from Ed Murrow saying he was pleased that we would be on Person-to-Person and assuring us that it was merely a minor chore and might turn out to be fun. Then groups of technicians began arriving to tour the house and believe me, they covered everything from roof to basement. This was weeks in advance.

Then nothing much happened at all for quite a spell. But every time I thought of the program I hit the panic button internally and wondered if I shouldn't have my head examined. I've never appeared on TV except for a panel discussion some years ago out in Kansas City. I still die a thousand deaths before making a speech. And here I had committed myself to showing off a house to millions.

Not only that, but neither my wife nor I had ever met Ed Murrow, and haven't yet. Nor have we met Jesse Zousmer, the capable gent who produces the show.

It wasn't until a week before the show that Dave Moore, one of Murrow's experienced script writers, called from New York saying he would like to come down the next Tuesday to talk with my missus and me at our house. So it wasn't until four days before the show that we began getting a glimmer of what would be discussed and what they wanted us to do. Dave brought along Chuck Hill, who was assigned to be producer of the actual show in Washington. We foregathered, along with a couple of other CBS people, and talked over subject matter.

Oh yeah—just relax!

Moore and Hill returned to New York and merely said that my wife and I were to be on hand at 6 p.m. Friday. We were still in the dark on almost everything. They said to relax. Oh sure, just take a sharp knife and cut through the bundle of nerves, let the blood drip out, and relaxing would be easy. But one thing I could well believe. They have always claimed that Person-to-Person was spontaneous and unrehearsed. You can believe me, it is just about like that.

Nobody told me to buy a blue shirt but I got one anyway. If I tripped on a cable and fell flat on my face in front of 30 or 40 million people, at least I would be dressed properly.

But I will say that the Moore-Hill visit took away some of the nervous tortures I had whenever I thought of the show. I adopted a fatalistic and philosophical attitude which quite amazed me in view of the stage-fright I have for days preceding a speech.

Wednesday came and went. The only thing that happened was that more and more people were discovering our names on the TV programs and were giving assurance they would be looking. Thursday came and nothing more happened until my wife and I drove home as usual at the end of the day. As I rounded the corner into our street I saw a huge crane parked in front of the house, holding up a 90-foot transmitting mast. There was also a truck and red lanterns were set out around all this stuff. And lo and behold, a uniformed guard was pacing up and down in front of the house.

I slowed up the car almost to a stop, then got courage to drive in my own driveway. The guard didn't seem to mind. When I got out I asked him if he thought somebody might come along and steal the crane and tower. He didn't have much of a sense of humor about that. We gave him some coffee and cold drinks and at midnight he was replaced by another guard. I don't know what the neighbors were thinking but at least they didn't complain about street obstructions.

Next morning, the day of the show, I went to my office as usual. My wife stayed at home. I was so restless I didn't get much work done. Shortly after lunch I called home to say I thought I might as well come on out, but my wife pleaded with me to stay downtown. The crew had moved in with their equipment and bedlam reigned supreme. There was no place to sit down, she said, and the place was crawling with people.

Nervous about nothing

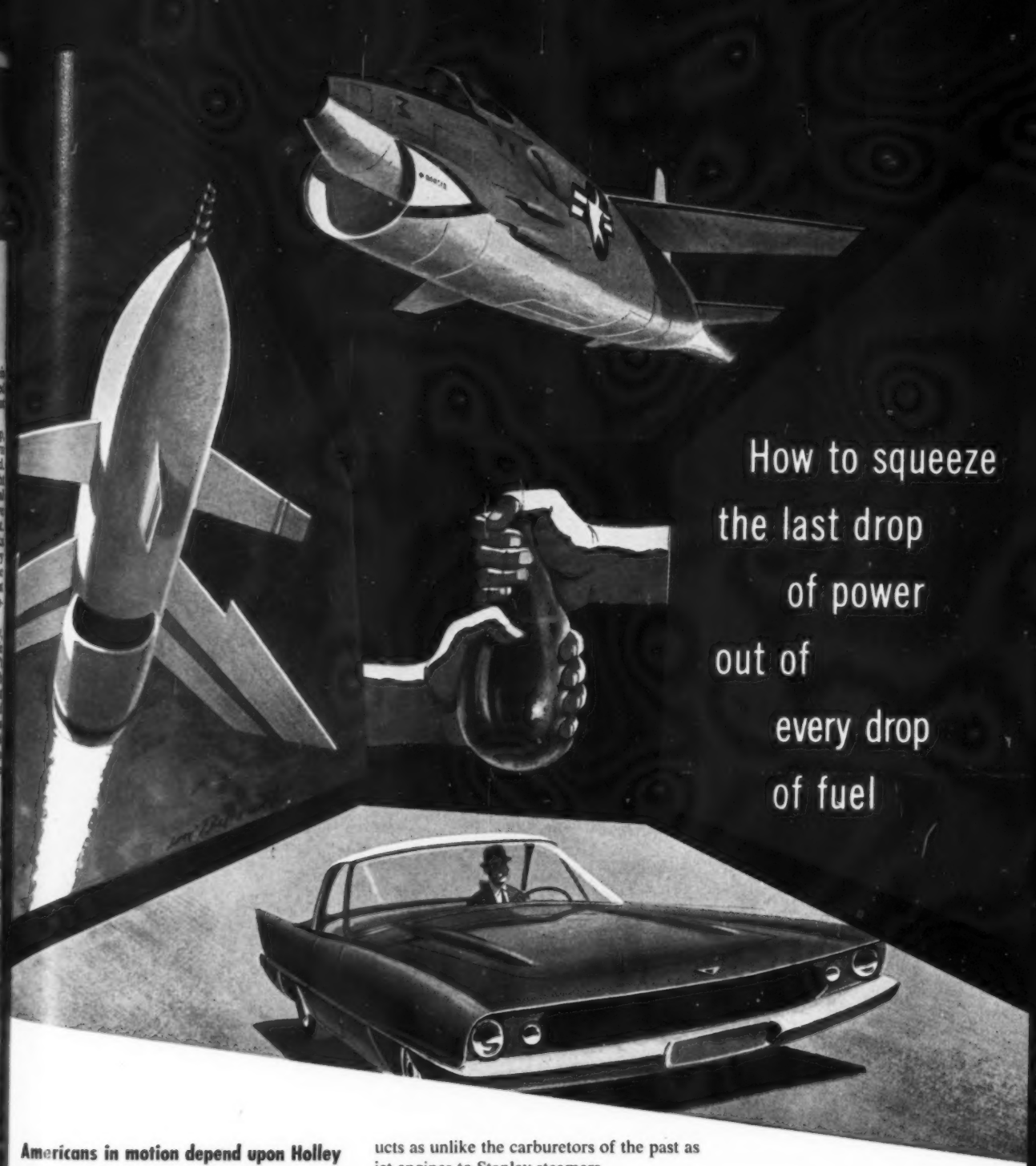
The afternoon passed very slowly. I should have been nervous, but how can you get nervous about something you know nothing about? I had seen no script. I knew nothing of the program. I had been told not to worry and to be on hand at 6 p.m.

By 4 o'clock I couldn't wait any longer. I went home to find a huge CBS truck parked at the doorway and 15 or 20 CBS technicians swarming over the house. Cables, lights, cameras and other equipment were everywhere. Our laundry had become a control room. Everywhere I went I was in somebody's way.

On the terrace were Dave Moore and Chuck Hill. Dave gave me a script to look over and for the first time I learned that the program would start in our living room. Then my wife and I would take the TV viewers through the first floor of the house, I would make a dash to the outside pool, then we would go upstairs and, finally, the program would end in the study.

One of the questions asked me most often is about rehearsals and preparation. Person-to-Person is supposed to be informal and spontaneous. I can testify to this. The script is primarily for direction and timing. The area of questioning and location is pinned down. But I noted with horror that the script left all the answers blank to be filled in during the program off the cuff by the victims. Even the questions were vague. Yep, it's disarmingly—and somewhat frighteningly—informal and unrehearsed.

(More next issue.)



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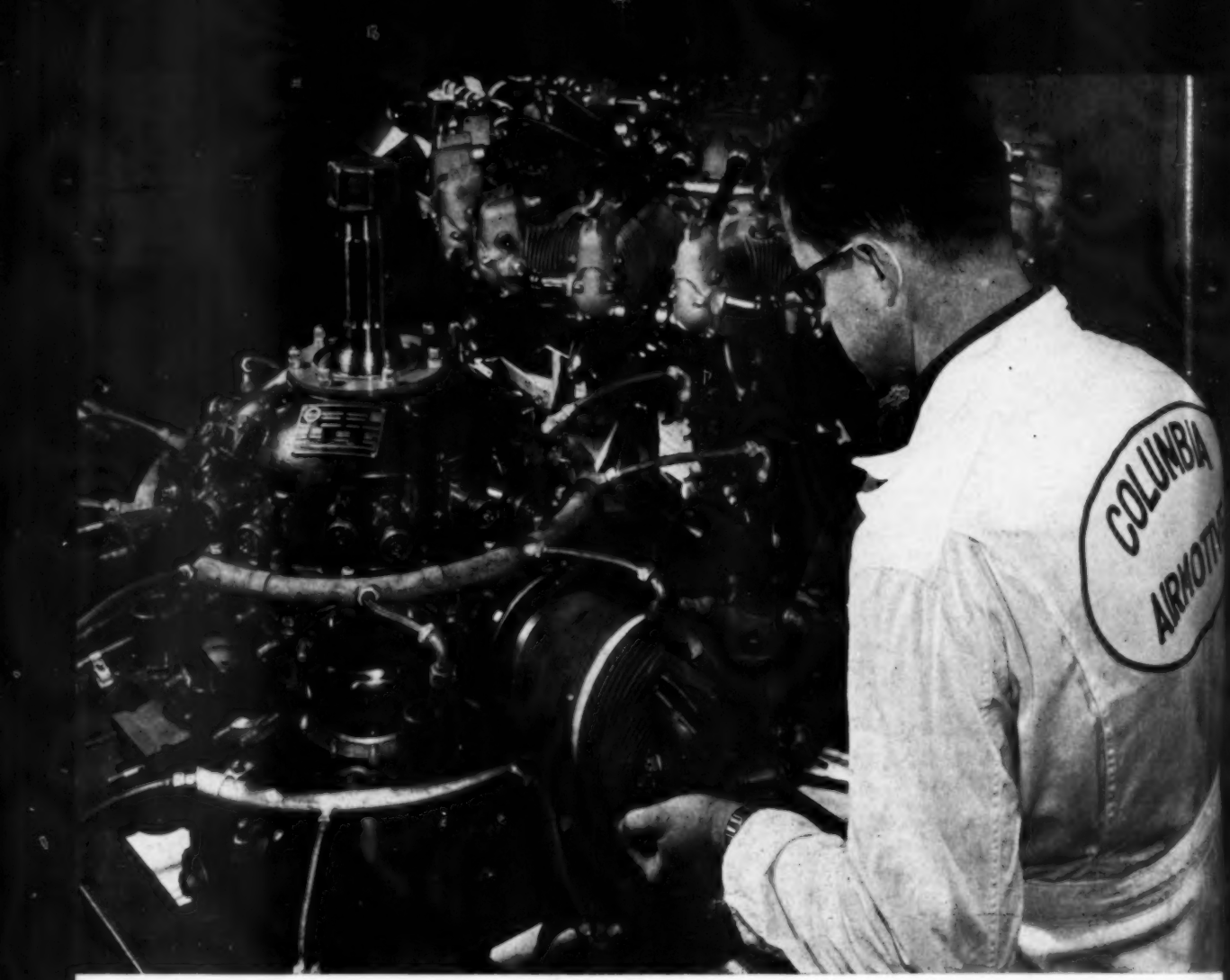

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